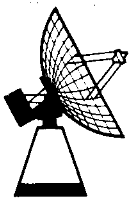
NEC

MODEL XM-2950/XM-2950G

MultiSync Multimedia Monitor

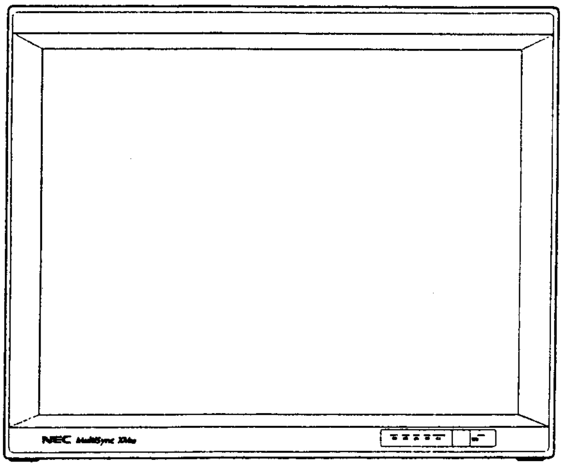
SERVICE MANUAL

PART No. 399910838



Better Service
Better Reputation
Better Profit

Use the SERVICE MANUAL together with SERVICE MANUAL SUPPLEMENT PG-2740 (399910815), as this SERVICE MANUAL covers only differentia.



SAFETY CAUTION:
Before servicing this chassis, it is important that the service technician read and follow the “Safety Precautions” and “Product Safety Notice” in this Service Manual.
* For continued X-radiation protection, replace picture tube with original type or NEC approved equivalent type.

WARNING:
SHOCK HAZARD - Use an isolation transformer when servicing.

NEC Corporation
TOKYO, JAPAN

CONTENTS

PG2740	XM-2950/XM-2950G
	(Refer to PG-2740)
SAFETY PRECAUTIONS	←
PRECAUTIONS DE SECURITE	←
SPECIFICATIONS	1-1
LOCATION AND FUNCTIONS OF CONTROLS	2-1
ADJUSTMENT PROCEDURES	←
1. Power Supply Check	←
2. Horizontal Oscillation Adjustment	←
2-1 DEF SUB PWB Horizontal Oscillation Asjustment	←
2-2 RGB PWB Horizontal Oscillation Adjustment	←
3. Vertical Oscillation Adjustment	←
3-1 DEF SUB PWB Vertical Oscillation Adjustment	←
3-2 RGB PWB Vertical Oscillation Adjustment	←
4. High Voltage Adjustment	←
4-1 DEF SUB and DEF/HV High Voltage Adjustment	←
4-2 DEF SUB and DEF/HV High Voltage Protector Adjustment	←
5. Video Chroma Circuit Adjustment	←
5-1 PAL Comb Filter Adjustment	←
5-2 Sub-Bright and Sub-Contrast Adjustments	←
5-3 PAL Matrix Adjustment	←
5-4 Auto Phase Control Adjustment	←
6. Horizontal Width Adjustment	←
7. Vertical Linearity Adjustment	←
8. Vertical Height Adjustment	←
9. Side Pin Cushion Adjustment	←
10. Image Tilt Correction	←
11. White Balance Procedure	←
12. Audio Circuit Adjustment	←
13. Raster D/A Control Setting	←
14. Visual D/A Control Setting	←
15. Dynamic Focus Waveform Adjustment	←
16. Focus Adjustment	←
17. High-Voltage Protector Circuit Operation Verification	←
SUPPLEMENT ADJUSTMENT PROCEDURE 1	←
SUPPLEMENT ADJUSTMENT PROCEDURE 2	←
APPEARANCE PART LOCATION	3-1
PACKAGING	4-1
WIRING METHOD	5-1
REPLACEMENT PART LIST	6-1
CONNECTION DIAGRAM	7-1
BLOCK DIAGRAM	8-1
SCHEMATIC DIAGRAMS	9-1
RGB I/O PWB (PWC-3835)	9-1
RGB PWB (PWC-3836)	9-6
VIDEO I/O PWB (PWC-3837)	9-12
VIDEO PWB (PWC-3838)	9-16
V-CRT PWB (PWC-3834)	9-19
µCOM/V PWB (PWC-3839)	9-21
DEF/HV PWB (PWC-3846)	9-29
DEF SUB PWB (PWC-3856A)	9-36
MAIN POWER SUPPLY PWB (PWC-3851A)	9-43
SUB POWER SUPPLY PWB (PWC-3851B, C, D)	9-45
H OUT PWB (PWC-3856B)	9-47
SW-LED PWB (PWC-3856C)	9-49

SPECIFICATIONS

Picture tube	27 inch Visual size (Diagonal), Type A68KZN696X(T) 108 degree deflection Stripe trio pitch Ph=0.80-0.96mm, Pv=0.75mm Invar mask, Medium-short persistence phosphor Anti-static electricity coating Optical filter coating Dynamic focus
Display Colors	Analog Input: Unlimited colors
Synchronization Range	Horizontal: 15.5 KHz to 50.5kHz (Automatically) Vertical:40 Hz to 120 Hz (Automatically)
Resolution	RGB Horizontal :800 lines/ Vertical:600 lines VIDEO Horizontal:600 lines
Video Bandwidth	RGB: 40 MHz (When No.6 pin of DIP SW 1 set to OFF) VIDEO: 8 MHz
Display Area	RGB : 95% Scan (Typically), 100% Scan (Maximum) VIDEO: 7% Overscan
Retrace Time	Horizontal: 4.2 µsec Vertical: 0.55 msec
Power Supply	AC 120V, 60Hz .... XM-2950 AC220-240V, 50/60Hz XM-2950G

Power Consumption	3.5A (maximum) .... XM-2950 2.6A (maximum) XM2950G
Dimensions	645(W) x 530(H) x 520(D) mm / 25.39(W)X20.98(H)X20.39(D) inches
Weight	54kg / 119.1lbs
Environmental Considerations	Operating Temperature : 0°C to 40°C Humidity : 0 to 90% Altitude: 0 -10,000 feet Storage Temperature : -10°C to 55°C Humidity: 0 to 90% Altitude:0-45,000 feet
Regulations :	UL Approved (UL 1950) CSA certified Meets FCC class A requirements Meets DHHS requirements
RGB Input Terminals	RGB 1 : D-SUB 15pin RGB 2 (R, G, B, H/CS and V) Video : Analog 0.7Vp-p/75 Ohm (Positive) Sync. : Separate Sync. TTL level Horizontal Sync. (Positive/Negative) Vertical Sync. (Positive/Negative) : Composite Sync. TTL Level (Positive/Negative) : Composite sync. On green Video 0.3Vp-p (Negative) 0.7 - 5Vp-p/75 Ohm .... RGB 2 only

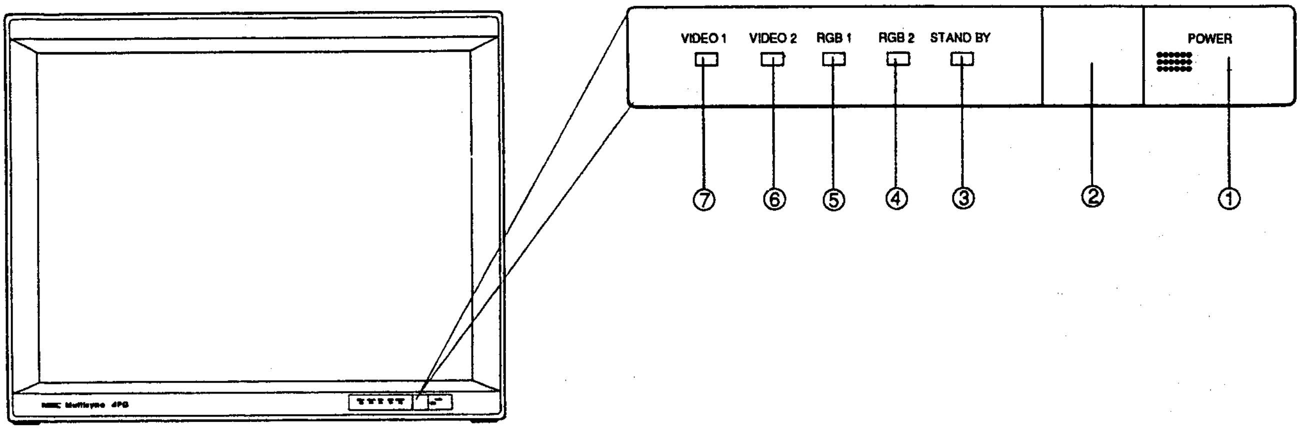
RGB Output Terminals, THROUGH OUT	RGB 1 : D-SUB 15pin RGB 2 : BNC (R, G, B, H/CS and V)
Video Input Terminals	
VIDEO 1/2	1.0Vp-p, 75 Ohm unbalanced (BNC-Jack), Composite video signal, Sync-negative.
S-VIDEO (Video 1/2)	Y : 1.0Vp-p, 75 Ohm unbalanced, Sync-negative. C : 0.28Vp-p, 75 Ohm unbalanced, Color burst level.
Video Output Terminals	
THROUGH OUT (Video 1, 2)	1.0Vp-p, 75 Ohm unbalanced (BNC Jack), Composite video signal, Sync-negative.
THROUGH OUT (S-VIDEO 1, 2)	Y : 1.0Vp-p, 75 Ohm unbalanced, Sync-negative. C : 0.28Vp-p, 75 Ohm unbalanced, Color burst level.
Audio Input Terminals VIDEO 1, 2 / RGB	Left (Mono) : 0.5 Vrms, high impedance (Pin-Jack) Right : 0.5Vrms, high impedance (Pin-Jack)
Audio Output Terminals THROUGH OUT	Left : 0.5 ± 0.1 Vrms, less than 22 K Ohm (Pin-Jack) Right : 0.5 ± 0.1 Vrms, less than 22 K Ohm (Pin-Jack)
External Control (IN/THROUGH OUT)	D-SUB 9pin (IN/THROUGH OUT)

SOUND Output	
Internal	2.5W+2.5W (THD 10%) at 16 Ohm
External	5W+5W (THD 10%) at 8 Ohm
Speaker	Oval type 9 X 5.5 cm 16 Ohm, 2pcs.

All specifications are subject to change without notice.

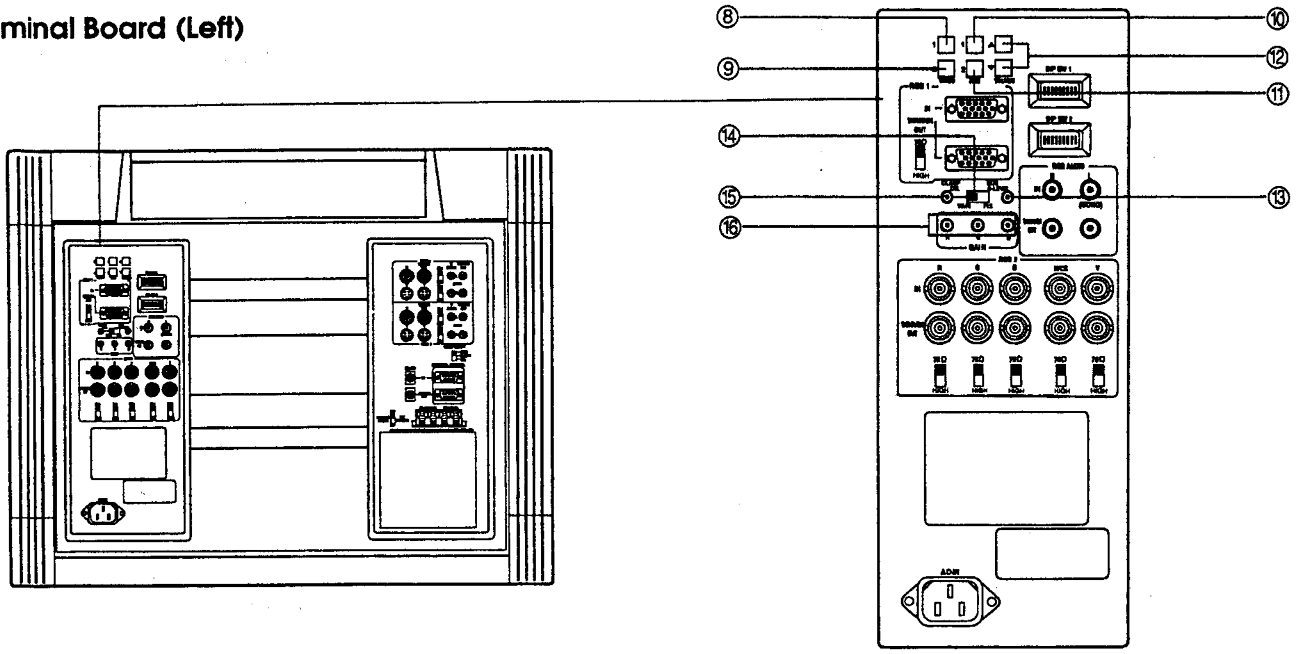
LOCATION AND FUNCTIONS OF CONTROLS

Front Panel



① **POWER**	Press to power the monitor on and off.
② **Remote Sensor Window**	Receives infrared signal from the remote control unit.
③ **STANDBY Indicator**	Indicates the monitor may be turned on using the POWER ON key on the remote control unit.
④ **RGB 2 Indicator**	Indicates the RGB 2 button ⑪ is set to receive signals from components connected to the RGB 2 input terminals (R, G, B, H/CS, V).
⑤ **RGB 1 Indicator**	Indicates the RGB 1 button ⑩ is set to receive signals from components connected to the RGB 1 input terminal (D-SUB 15 pin).
⑥ **VIDEO 2 Indicator**	Indicates the VIDEO 2 button ⑨ is set to receive signals from components connected to the VIDEO 2 input terminal (BNC type or S-VIDEO 2 IN).
⑦ **VIDEO 1 Indicator**	Indicates the VIDEO 1 button ⑧ is set to receive signals from components connected to the VIDEO 1 input terminal (BNC type or S-VIDEO 1 IN).

Terminal Board (Left)

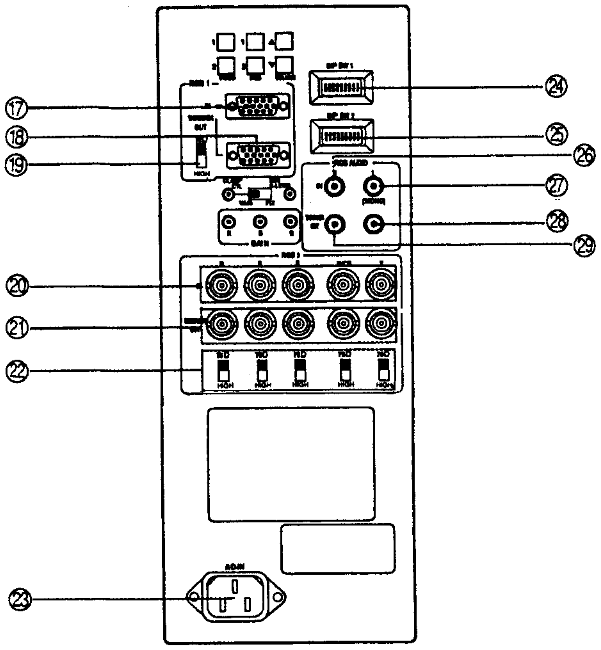


⑧ **VIDEO 1**	Press to select reception of a component connected to the VIDEO 1 input terminal (BNC type or S-VIDEO 1 IN).
⑨ **VIDEO 2**	Press to select reception of a component connected to the VIDEO 2 input terminal (BNC type or S-VIDEO 2 IN).

NOTE: S-VIDEO IN terminals will take preference over VIDEO IN terminals when components are connected to each terminal and VIDEO 1 or 2 selected.

⑩ **RGB1**	Press to select reception of a component connected to the RGB 1 input terminal (D-SUB 15 pin).
⑪ **RGB 2**	Press to select reception of a component connected to the RGB 2 input terminals (R, G, B, H/CS, and V).
⑫ **VOLUME (▼/▲)**	Press and hold ▼ to decrease sound. Press and hold ▲ to increase sound.
⑬ **SUB B-LEVEL**	To be adjusted by service personnel only.
⑭ **CLAMP CTL FIX/VARI Select Switch**	Use to select either FIX or VARI setting. It should normally be set to the FIX position. When adjusting the clamp pulse position by using CLAMP CTL, set to the VARI position.
⑮ **CLAMP CTL**	To be adjusted by service personnel only. Turn to adjust the clamp pulse position.
⑯ **R,G, B GAIN**	To be adjusted by service personnel only. Turn to adjust each gain for Red, Green and Blue.

LOCATION AND FUNCTIONS OF CONTROLS



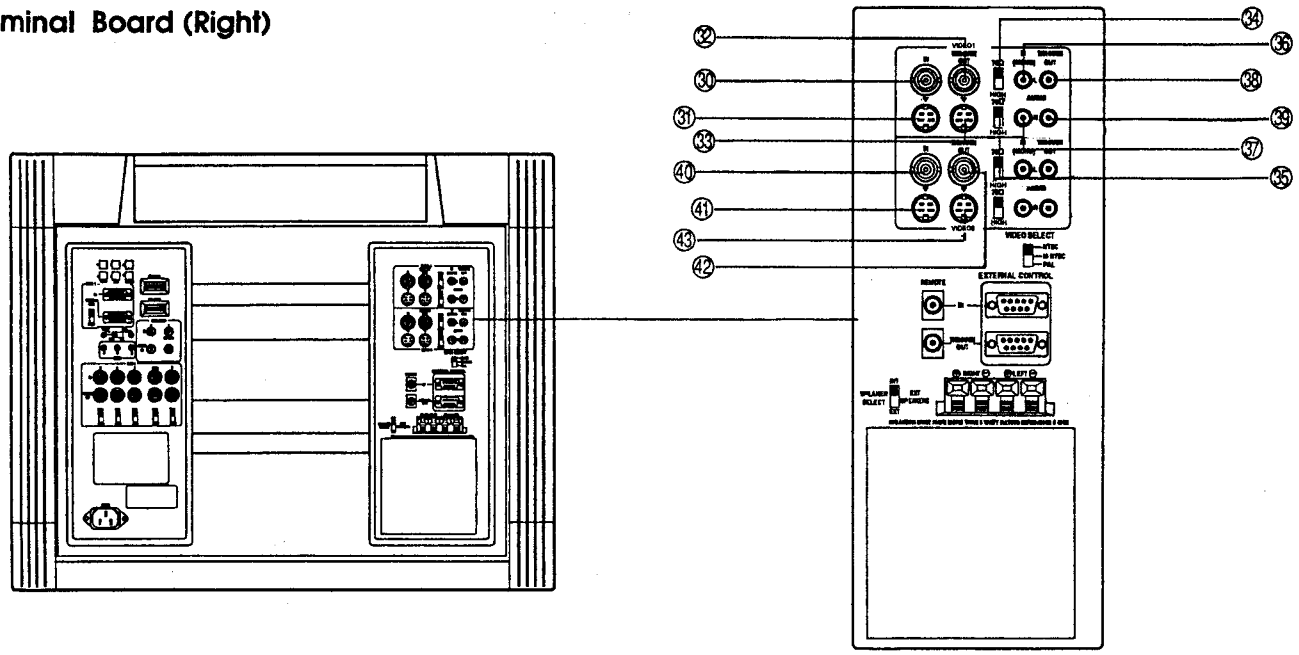
RGB 1

⑰ **D-SUB 15 PIN IN**	A 15 Pin Analog RGB 1 input terminal compatible with computers that have a VGA output signal.
⑱ **D-SUB 15 PIN THROUGH OUT**	Connect to RGB INPUT terminal on the *IBM monitor (#8512, #8513, #8514 or equivalent).
⑲ **75 Ω/HIGH Impedance Select Switch**	Set to "75 Ω" during normal operation. Set to "HIGH" when using the D-SUB 15 PI THROUGH OUT RGB 1 terminal.

RGB 2

⑳ **R, G, B, H/CS, and V IN (BNC)**	These are analog RGB input terminals. Connect external components with R, G, B, H, and V output terminals to these analog RGB input terminals. Be sure that the RGB connection cable is correctly attached to the corresponding terminals. When connecting devices where the sync signal is an H/V composite signal, connect it to the H/CS terminal.
㉑ **R, G, B, H/CS, and V THROUGH OUT(BNC)**	Connect to a second monitor's RGB inputs to relay the RGB signal inputs at R, G, B, H/CS, and V IN ⑳.
㉒ **75 Ω/HIGH Impedance Select Switch**	Set to "75 Ω" during normal operation. In multiple connections using R, G, B, H/CS, and V IN ⑳ and OUT ㉑ terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.
㉓ **AC IN**	Connect the supplied power cord's three-pin plug here.
㉔ **DIP SW 1**	This DIP switch sets each operating mode of the monitor. See page 18 and 19 for more details.
㉕ **DIP SW 2**	This DIP switch sets Sync. Control and also used as D-SUB 15 PIN termination switch. Set all eight pins to the OFF position during normal operation. See pages 20-22 for more details.
㉖ **R RGB AUDIO IN**	Connect the audio right channel output of the RGB component.
㉗ **L RGB AUDIO IN (MONO)**	Connect the mono audio or stereo left channel output of the RGB component.
㉘ **L RGB AUDIO THROUGH OUT**	Connect to a second monitor's audio left channel RGB input.
㉙ **R RGB AUDIO THROUGH OUT**	Connect to a second monitor's audio right channel RGB input.

Terminal Board (Right)



VIDEO 1

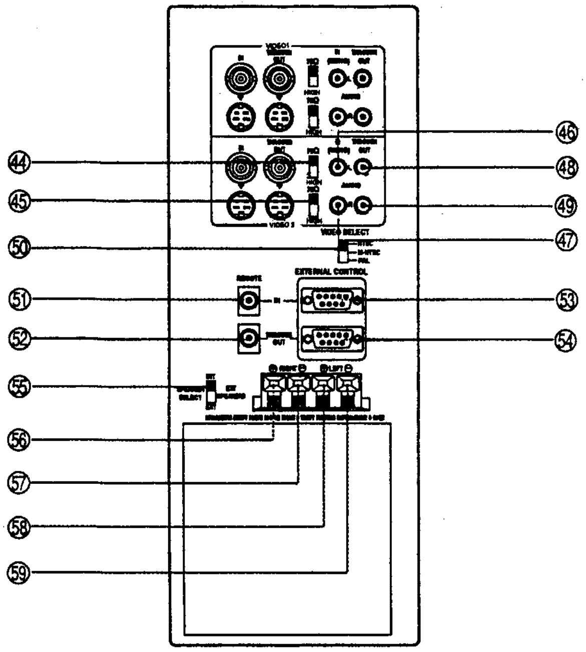
㉚ **VIDEO 1 IN (BNC)**	Connect external video component output here.
㉛ **S-VIDEO 1 IN**	Connect external components with S-CONNECTOR output here.
㉜ **THROUGH OUT (BNC)**	Connect to a second monitor's video input to relay the video signal input at VIDEO 1 IN ㉚.
㉝ **THROUGH OUT (S-VIDEO)**	Connect to a second monitor's S-CONNECTOR input to relay the video signal input at S-VIDEO 1 IN ㉛.
㉞ **75 Ω/HIGH Impedance Select Switch**	Set to "75 Ω" during normal operation. In multiple connections using VIDEO 1 IN ㉚ and THROUGH OUT (BNC) ㉜ terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.
㉟ **75 Ω/HIGH Impedance Select Switch**	Set to "75Ω" during normal operation. In multiple connections using S-VIDEO 1 IN ㉛ and THROUGH OUT (S-VIDEO) ㉝ S-CONNECTOR terminals, set to "HIGH" on all but the last monitor. Set to "75Ω" on the last monitor only.

㊱ **L AUDIO IN (MONO)**	Connect external component mono audio or stereo left channel audio output here.
㊲ **R AUDIO IN**	Connect external component stereo right channel audio output here.
㊳ **L AUDIO OUT**	Connect to a second monitor's audio left channel input.
㊴ **R AUDIO OUT**	Connect to a second monitor's audio right channel input.

VIDEO 2

㊵ **VIDEO 2 IN (BNC)**	Connect external component video output here.
㊶ **S-VIDEO 2 IN**	Connect external component with S-CONNECTOR output here.
㊷ **THROUGH OUT (BNC)**	Connect to a second monitor's video input to relay the video signal input at VIDEO 2 IN ㊵.
㊸ **THROUGH OUT (S-VIDEO)**	Connect to a second monitor's S-CONNECTOR input to relay the video signal input at S-VIDEO 2 IN ㊶.

LOCATION AND FUNCTIONS OF CONTROLS



㊹ 75 Ω/HIGH Impedance Select Switch .... Set to "75 Ω" during normal operation. In multiple connections using VIDEO 2 IN ㊵ and THROUGH OUT (BNC) ㊷ terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.

㊺ 75 Ω/HIGH Impedance Select Switch .... Set to "75 Ω" during normal operation. In multiple connections using S-VIDEO 2 IN ㊶ and THROUGH OUT (S-VIDEO) ㊸ S-CONNECTOR terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.

㊻ L AUDIO IN (MONO) .... Connect external component audio mono or stereo left channel output here.

㊼ R AUDIO IN .... Connect external component audio stereo right channel output here.

㊽ L AUDIO OUT .... Connect to a second monitor's audio left channel input.

㊾ R AUDIO OUT .... Connect to a second monitor's audio right channel input.

㊿ VIDEO SELECT Switch .... Set switch to NTSC, M-NTSC or PAL depending on the selected video signal format. It should normally be set to NTSC.

(51)/(52) REMOTE IN/OUT .... When the supplied remote control is used in the wired condition, connect the supplied remote cable to the REMOTE IN terminal.
The REMOTE OUT terminal is used to connect several monitors together and allows all of the monitors to be controlled by one remote control.

NOTE: Up to 50 monitors can be connected in the serial connection.

(53) EXTERNAL CONTROL Input .... This terminal is used when power ON/OFF, input selection, AUDIO MUTE, PICTURE MUTE, and DEGAUSS are operated externally (by external control). See also page 36 for the external control port pin assignments.

NOTE: Select EXT. CONTROL ON by setting pin No.7 of DIP SW 1 to ON when operating the monitor by external control.

NOTE: When in the EXT. CONTROL mode, the following operations of the supplied remote control are not possible:Power control ON/OFF, Input selection, Audio mute ON/OFF, and Degauss switch ON/OFF.

(54) EXTERNAL CONTROL THROUGH OUT .... Connect to a second monitor's EXTERNAL CONTROL input to relay the signal input at the EXTERNAL CONTROL IN (53).
The EXTERNAL CONTROL THROUGH OUT terminal is used to connect several monitors together (up to 50) and allows all of the monitors to be controlled by one external control. No.7 pin (EXT. CONTROL) of DIP SW 1 ㉔ must be set to the ON position on all of the monitors.

(55) SPEAKER SELECT INT/EXT .... Set to the INT position for built-in monitor speakers.
Set to the EXT position for speakers connected to EXT SPEAKERS terminals.

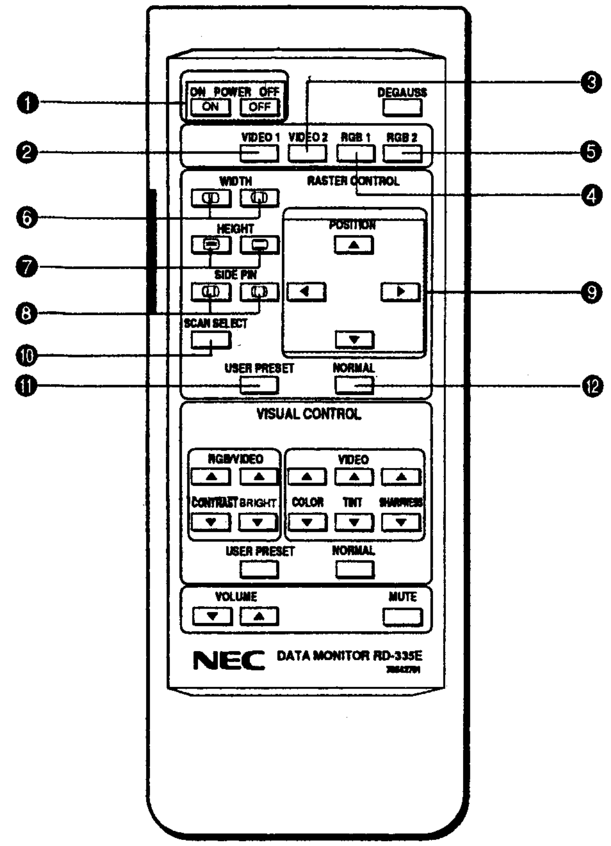
(56) + RIGHT .... Connect RIGHT speaker positive wire here.

(57) - RIGHT .... Connect RIGHT speaker negative wire here.

(58) - LEFT .... Connect LEFT speaker negative wire here.

(59) + LEFT .... Connect LEFT speaker positive wire here.

Remote Control Unit


❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
⓬
ON POWER OFF
ON
OFF
DEGAUSS
VIDEO 1
VIDEO 2
RGB 1
RGB 2
WIDTH
RASTER CONTROL
HEIGHT
POSITION
SIDE PIN
SCAN SELECT
USER PRESET
NORMAL
VISUAL CONTROL
RGB/VIDEO
VIDEO
CONTRAST
BRIGHT
COLOR
TINT
SHARPNESS
USER PRESET
NORMAL
VOLUME
MUTE
NEC
DATA MONITOR RD-335E

❶ **POWER ON/OFF**	Press POWER ON to turn the monitor on when the STANDBY indicator is lit. Press POWER OFF to turn the monitor off and the monitor will go into the standby condition.
❷ **VIDEO 1**	Press to select reception of a conventional component or S-connector component connected to VIDEO 1 IN terminal.
❸ **VIDEO 2**	Press to select reception of a conventional component or S-connector component connected to VIDEO 2 IN terminal.
❹ **RGB1**	Press to select reception of a component connected to RGB 1 IN terminal.
❺ **RGB 2**	Press to select reception of a component connected to RGB 2 IN terminal.

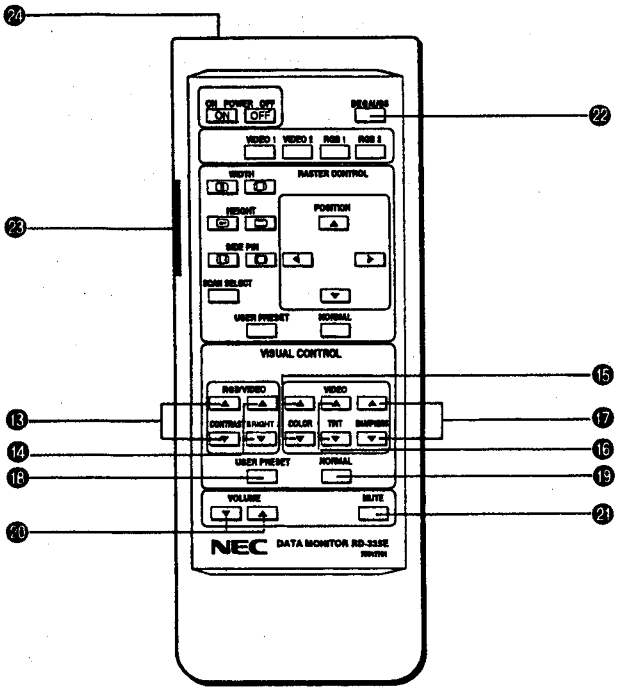
Raster Control

❻ **WIDTH** (◫ / ◫)	Adjusts the horizontal size of the image from wider to narrower.
❼ **HEIGHT** (⊜ / ⊟)	Adjusts the vertical size of the image from taller to shorter.
❽ **SIDE PIN** (◫ / ◫)	Adjusts the curvature of the edges of the left and right side of the display image either inward or outward. The image should be adjusted to attain a straight line on the left and right sides.
❾ **POSITION** (▲ / ▼ / ◀ / ▶) ...	Adjusts the vertical position of the image up and down, and the horizontal position of the image from left to right.
❿ **SCAN SELECT**	Pressing this button toggles picture size between OVER SCAN (large) and UNDER SCAN (small). Normally select OVER SCAN for video display and UNDER SCAN for RGB display.
⓫ **USER PRESET**	Press to store the raster adjustments (WIDTH, HEIGHT, SIDE PIN, POSITION, and SCAN SELECT) in the memory. Storing operation should be performed for each input signal. See "Signal Identification Flowchart" on pages 44 and 45.

NOTE: The monitor will recall the raster adjustment settings that were stored last when switched to a new source.

⓬ **NORMAL**	This key resets the raster adjustment settings of user changeable memory and recalls the factory preset data.

LOCATION AND FUNCTIONS OF CONTROLS



NOTE: The COLOR, TINT and SHARPNESS keys only work for the video display.

⑱ USER PRESET .... Press to store the picture adjustments (CONTRAST, BRIGHT, COLOR, TINT and SHARPNESS) in the memory.

NOTE: The VISUAL CONTROL storing operation is effective only for one input (VIDEO1, VIDEO2, RGB1 or RGB2).

⑲ NORMAL .... This key resets the picture adjustment settings of user changeable memory and recalls the factory preset data.

NOTE: The CONTRAST, BRIGHT, COLOR, TINT and SHARPNESS adjustment level are factory preset at the optimum position.

⑳ VOLUME (▼ / ▲) .... Used to adjust the volume.
Press and hold ▼ to decrease sound.
Press and hold ▲ to increase sound.

㉑ MUTE .... Press to cancel sound ; press again to restore sound.

NOTE: The other ways to restore sound are to press POWER ON/OFF and VOLUME keys on the remote control unit.

㉒ DEGAUSS .... This key is used to demagnetize the picture tube in the manual operation. See also page 35.

Visual Control

⑬ RGB/VIDEO
CONTRAST (▲ / ▼) .... Used to adjust contrast of video or RGB display.
Press and hold ▲ for higher contrast.
Press and hold ▼ for lower contrast.

⑭ RGB/VIDEO
BRIGHT (▲ / ▼) .... Used to adjust brightness of video or RGB display.
Press and hold ▲ for a brighter picture.
Press and hold ▼ for a darker picture.

⑮ COLOR (▲ / ▼) .... Used to adjust color intensity of video display.
Press and hold ▲ for more color saturation.
Press and hold ▼ for less color saturation.

⑯ TINT (▲ / ▼) .... Used to adjust red and green values of video display.
Press and hold ▲ for a greener tint.
Press and hold ▼ for a redder tint.
This control does not work for the PAL signal.

⑰ SHARPNESS (▲ / ▼) ...... Used to adjust picture detail of video display.
Press and hold ▲ for a sharper picture.
Press and hold ▼ for a softer picture.

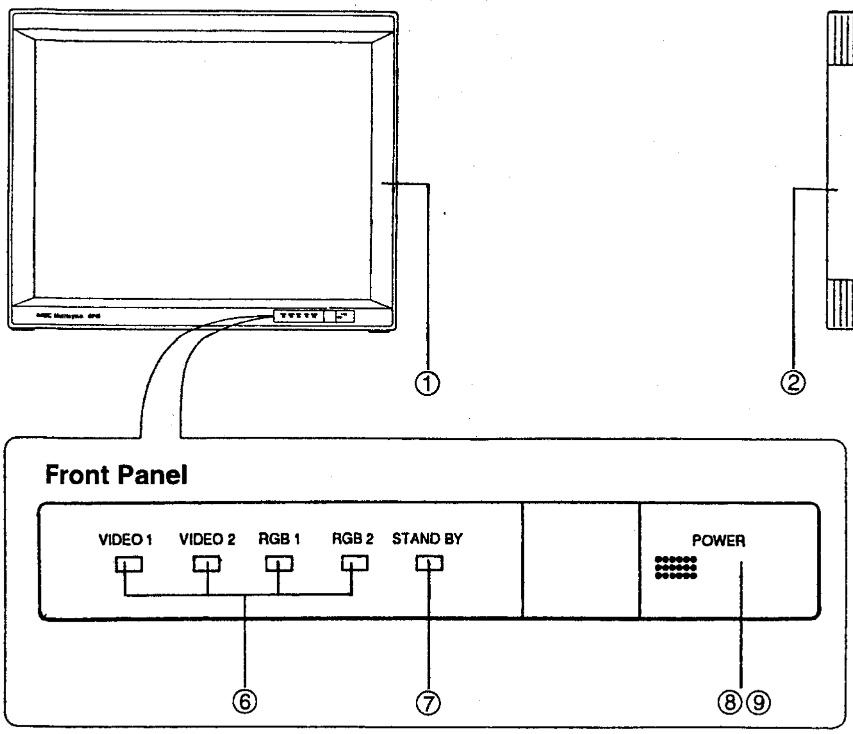
㉓ Backlight Switch .... Set to ON to light up keys from the inside of the remote control panel.
This is useful when the remote control unit is used in a darkened room.

NOTE: The backlight key characters may be invisible in a bright-lit room. Make sure that the backlight switch is OFF when the remote control unit is not used.
If no button operation is made within 30 seconds when the backlight switch is ON in the wireless condition, the backlight go off automatically. To turn the backlight on again, set the switch to the OFF position, then set it to the ON position.

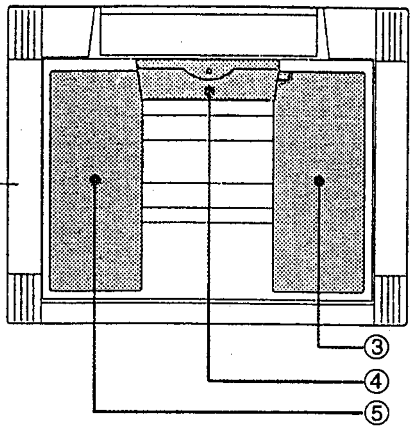
㉔ Remote Jack .... Insert the plug of the supplied remote cable when using the supplied remote control unit in the wired condition. Connecting the monitor and the remote control unit with the supplied remote cable turns on the backlight when the switch is set to the ON position.

APPEARANCE PART LOCATION

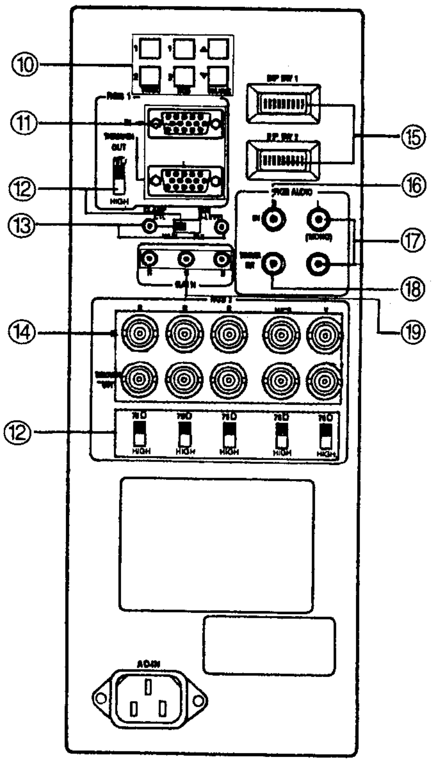
Front View


①
Front Panel
VIDEO 1
VIDEO 2
RGB 1
RGB 2
STAND BY
POWER
⑥
⑦
⑧⑨

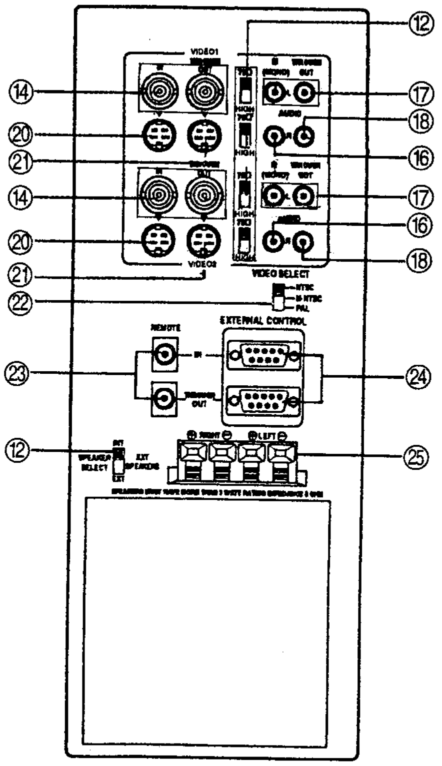
Rear View



Terminal Board (Left)


⑩
⑪
⑫
⑬
⑭
⑫
⑮
⑯
⑰
⑱
⑲
OUT
HIGH
GAIN
IN
(MONO)
75Ω
HIGH
AC IN

Terminal Board (Right)


⑫
⑭
⑳
㉑
⑭
⑳
㉑
㉒
㉓
⑫
⑰
⑱
⑯
⑰
⑯
⑱
㉔
㉕
VIDEO1
IN
OUT
75Ω
HIGH
(MONO)
AUDIO
VIDEO2
VIDEO SELECT
NTSC
PAL
REMOTE
IN
OUT
EXTERNAL CONTROL
RIGHT
LEFT
SPEAKER SELECT
EXT
SPEAKERS

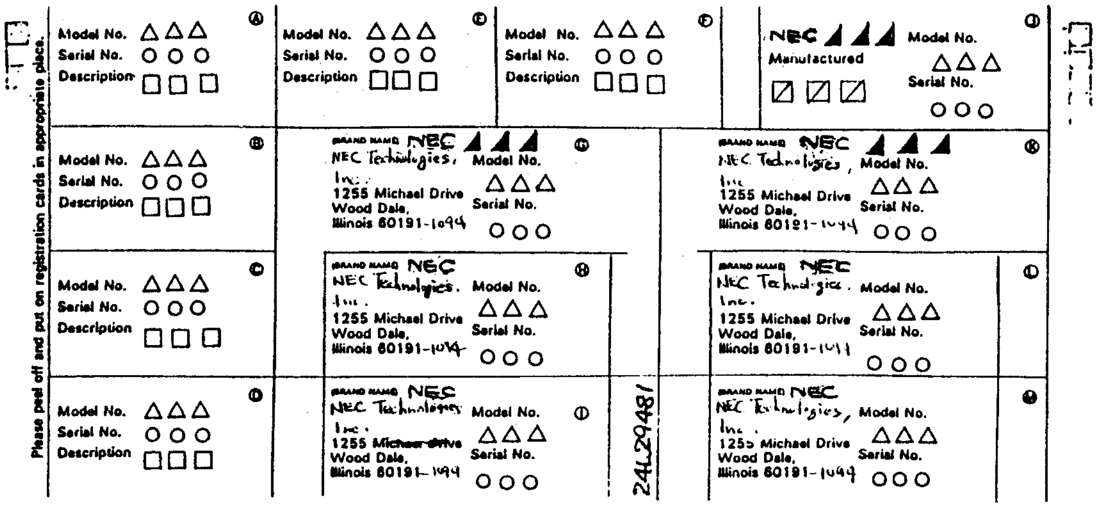
APPEARANCE PART LOCATION

NO.	PARTS NO.	DESCRIPTION	Q'TY
①	24DT4671	CABINET FRONT ASSY	1
②	24DT3972	CABINET BACK ASSY	1
③	24F18425	TERMINAL PANEL R	1
④	24FT5001	CASE (REMOTE)	1
⑤	24F18433	TERMINAL PANEL L	1
⑥	36801308	LED SEL1820D	4
⑦	36801023	LED SEL1320G	1
⑧	24GS9053	PUSH BUTTON (POWER)	6
⑨	24514792	COIL SPRING	1
⑩	65399033	PUSH SWITCH BUTTON	1
⑪	70056208	D-SUB SOCKET 15P	2
⑫	65199018	SWITCH,SLIDE	12
⑬	41011136	R,VARIABLE B10K	2
⑭	70599090	BNC RECEPTACLE	14
⑮	65121105	SWITCH,SLIDE	2
⑯	70051124	PIN JACK 1P	3
⑰	70051121	PIN JACK 1P	6
⑱	70051120	PIN JACK 1P	3
⑲	41011135	R,VARIABLE B20K	3
⑳	70057006	DIN SOCKET 4P (SW-2)	2
㉑	70057008	DIN SOCKET 4P	2
㉒	65199027	SWITCH,SLIDE	1
㉓	70505027	HEADPHONE JACK	2
㉔	70056406	D-SUB SOCKET 9P	2
㉕	71199021	TERMINAL 4P,SPEAKER	1

PACKAGING

(1) XM-2950

Disposal of Serial Number Label (24L2948□)


Please peel off and put on registration cards in appropriate place.
Ⓐ
Ⓑ
Ⓒ
Ⓓ
Ⓔ
Ⓕ
Ⓖ
Ⓗ
Ⓘ
Ⓙ
Ⓚ
Ⓛ
Model No. △△△
Serial No. ○○○
Description □□□
NEC
Manufactured ▨▨▨
BRAND NAME NEC
NEC Technologies, Inc.
1255 Michael Drive
Wood Dale,
Illinois 60191-1094
24L2948/

A) Display Contents and Display Points

The specified display of Model No., serial No., Description, date code, and factory ID shall be automatically printed (marked).

Example: Model No.	XM-2950	(△△△ section)	13 points
Serial No.	00000000	(○○○ section)	13 points
Description	"27" COLOR monitor	(▨▨▨ section)	6 points
Date code	January, 1995	(□□□ section)	1 point
Factory ID	720N	(■■■ section)	3 points

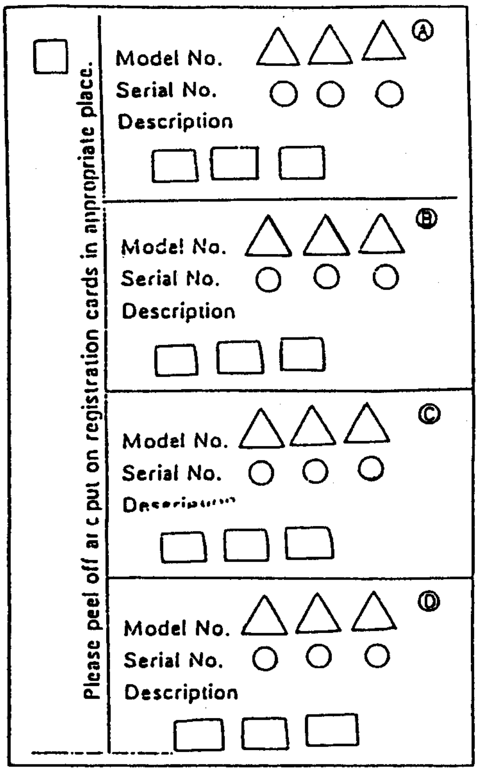
* 720N........................Production at the Nagano Factory

* The labels not used may not be printed.
(Example: Ⓔ and Ⓕ)

B) Display Contents Specifying

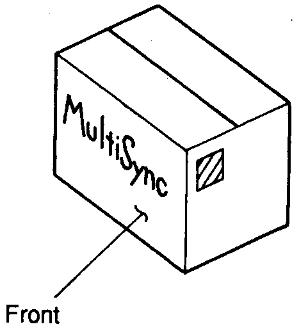
This shall be specified by the Production

C) Sealing Places

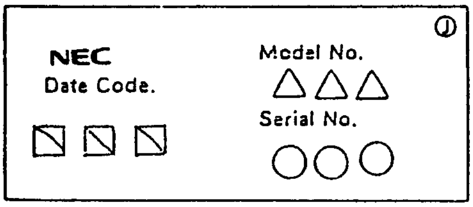

Please peel off and put on registration cards in appropriate place.
Ⓐ
Model No.
Serial No.
Description
Ⓑ
Model No.
Serial No.
Description
Ⓒ
Model No.
Serial No.
Description
Ⓓ
Model No.
Serial No.
Description

Cut the left section together with the cardboard paper, insert it in the polyethylene bag (DHHS) (24M0291☐) together with the DHH card (24L2949[]), and put it at the specified point on the right top on the left side of the cardbaoard. In this case, sealing shall be made in such a position where the model No., Serial No., and description can be seen.

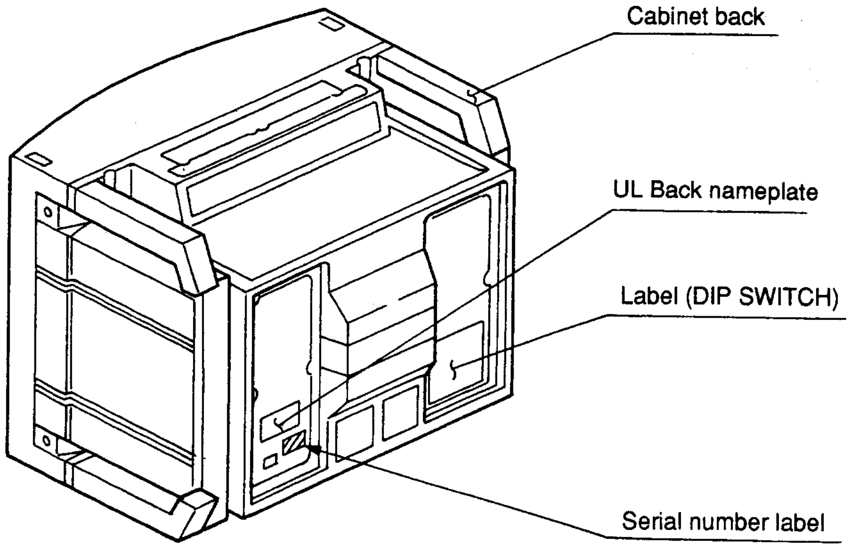
[Each dealer should apply the label shown at left upon the [ ] marked points Ⓐ, Ⓑ, and Ⓒ of the DHHS card by removing the labels Ⓐ, Ⓑ, and Ⓒ.]


MultiSync
Front

D) Application to Terminal Fitting Strip

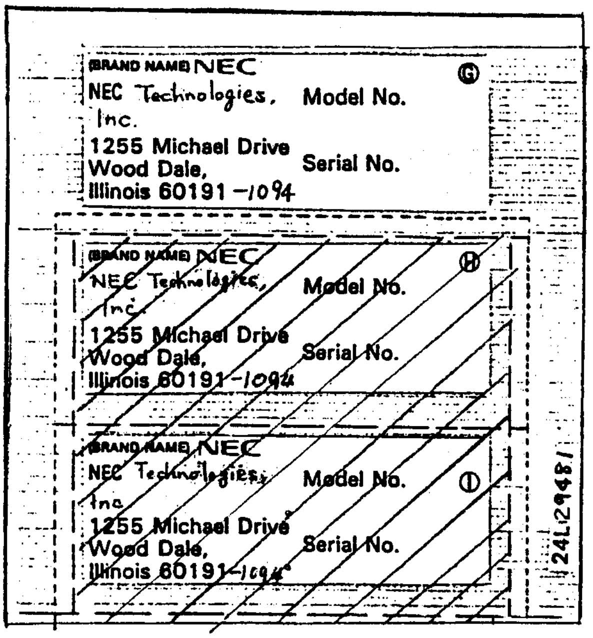

Ⓓ
NEC
Date Code.
Model No.
Serial No.

Remove the left shown at left from the cardboard and apply it to the lower left (the lower section of the IUL back nameplate) of the terminal fitting strip (R) of each set.

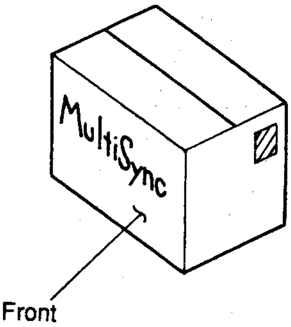

Cabinet back
UL Back nameplate
Label (DIP SWITCH)
Serial number label

E) Application to the Cardboard Box

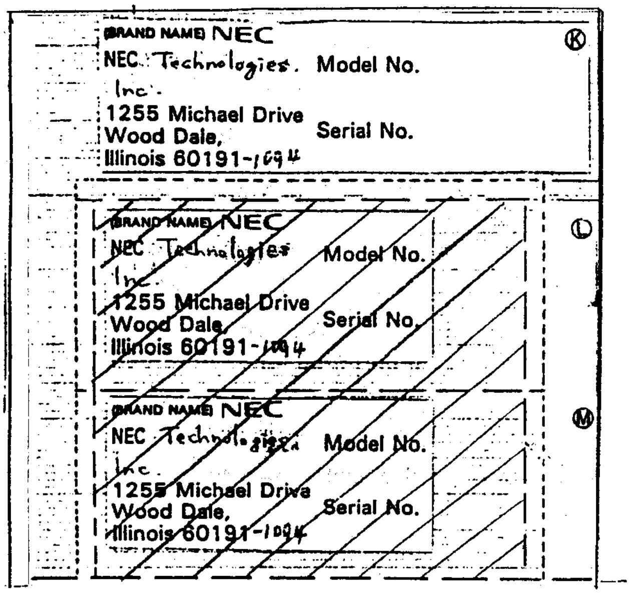
E-1) Right Side


(BRAND NAME) NEC
Ⓖ
NEC Technologies, Inc.
Model No.
1255 Michael Drive
Wood Dale,
Illinois 60191-1094
Serial No.
Ⓗ
Ⓘ
24L:29481

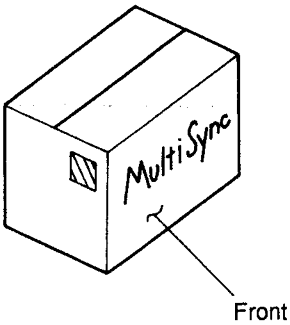
Remove the label shown at left from the cardboard and apply it to the left top on the left of the cardboard. (However, the cardback of the broken line portion shown at left must be applied by not removing it.)


MultiSync
Front

E-2) Left Side


(BRAND NAME) NEC
Ⓚ
NEC Technologies, Inc.
Model No.
1255 Michael Drive
Wood Dale,
Illinois 60191-1094
Serial No.
Ⓛ
Ⓜ

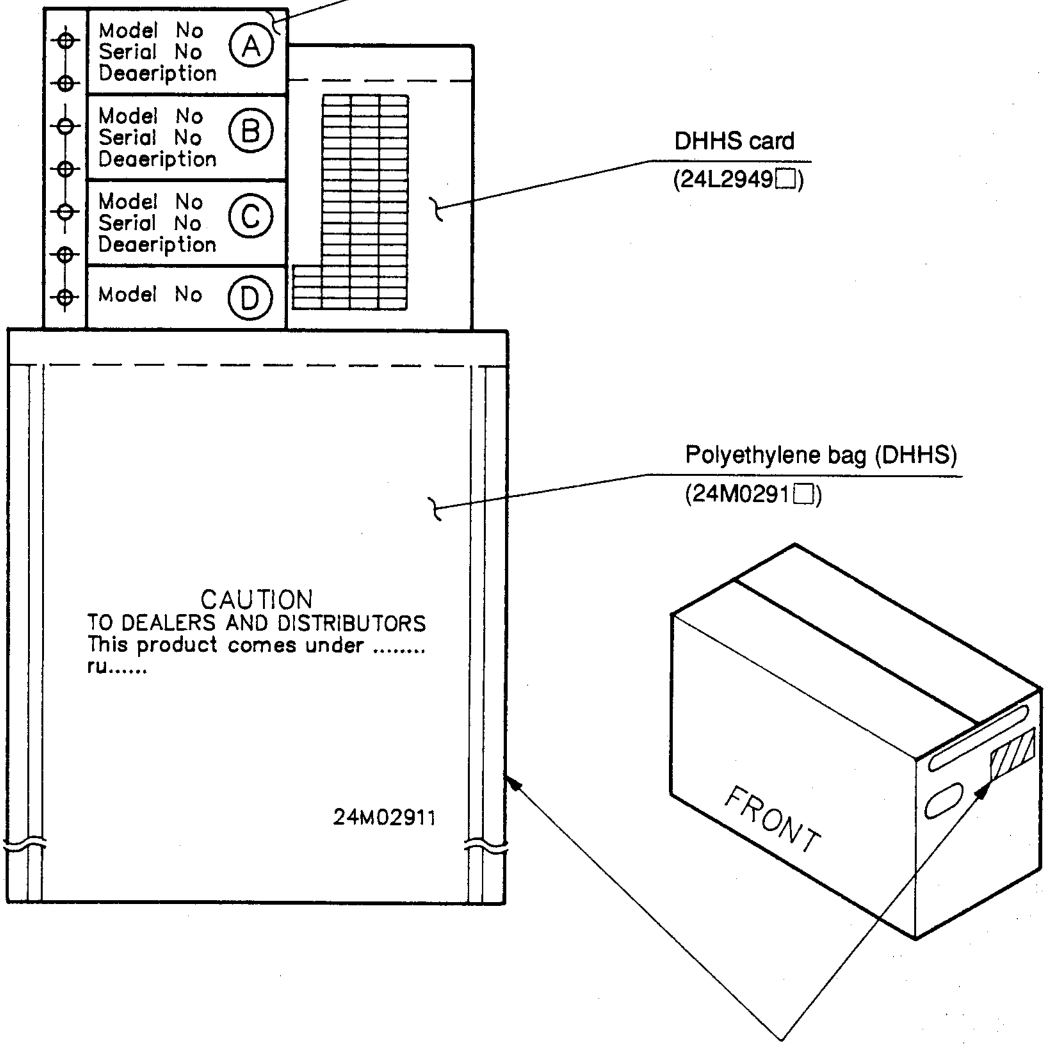
Remove the label shown at left from the cardboard and apply it to the right top on the left side of the cardboard. (But apply the label without removing the cardboard of the broken line shown at left.)


MultiSync
Front

PACKAGING

Disposal of Polyethylene Bag (DHHS) (24M0291[])

Insert the Ⓐ, Ⓑ, Ⓒ, and Ⓓ sections (with the cardboard) of the DHHS card (24L2949[]) and the serial number label (24L2948[]) inside, fold the top end section of the polyethylene bag (DHHS), seal it, and remove the back cardboard. Then, apply the label to the right top on the left side of the cardboard with it laid to the left.

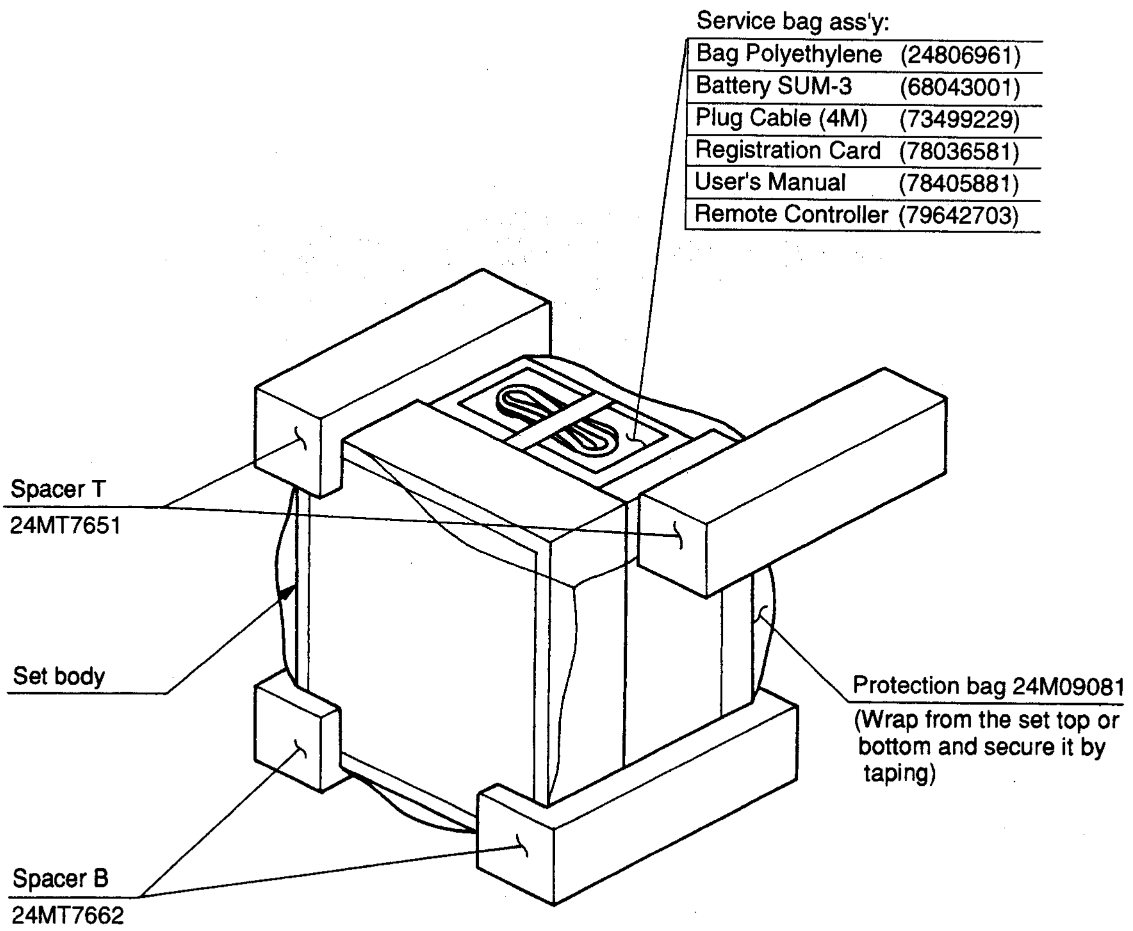

Model No
Serial No
Deaeription
Ⓐ
Model No
Serial No
Deaeription
Ⓑ
Model No
Serial No
Deaeription
Ⓒ
Model No
Ⓓ
CAUTION
TO DEALERS AND DISTRIBUTORS
This product comes under ....
ru......
24M02911
FRONT

Serial number label printed
(242948□)

DHHS card
(24L2949□)

Polyethylene bag (DHHS)
(24M0291□)

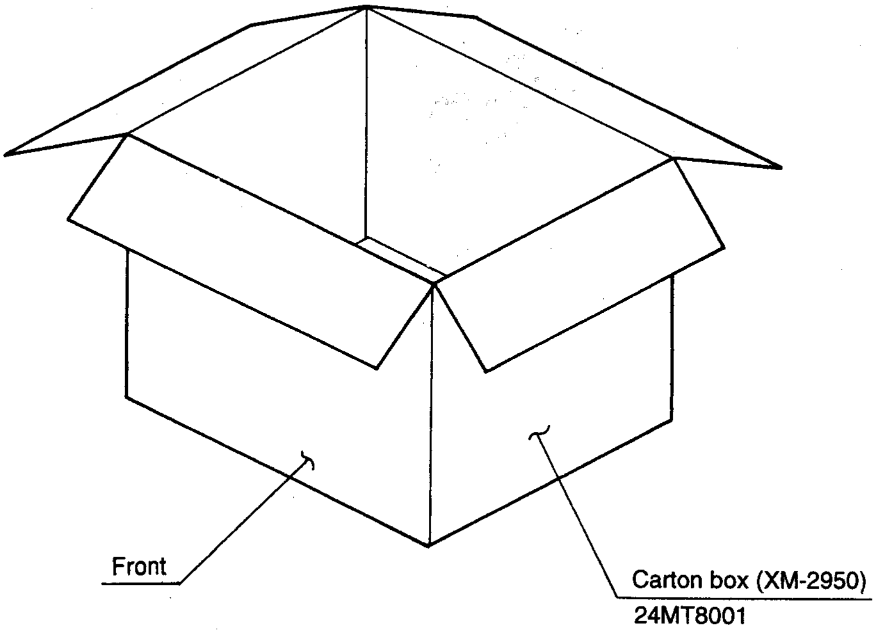
Apply the label with it right to the right.



Service bag ass'y:

Bag Polyethylene	(24806961)
Battery SUM-3	(68043001)
Plug Cable (4M)	(73499229)
Registration Card	(78036581)
User's Manual	(78405881)
Remote Controller	(79642703)

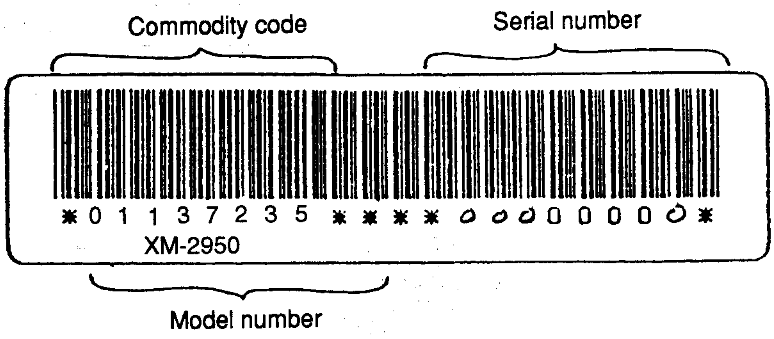
Spacer T
24MT7651
Set body
Protection bag 24M09081
(Wrap from the set top or bottom and secure it by taping)
Spacer B
24MT7662

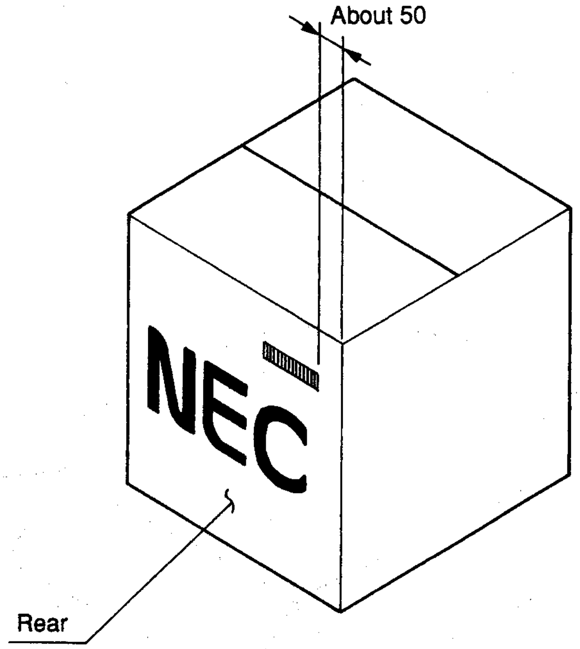


Front
Carton box (XM-2950)
24MT8001

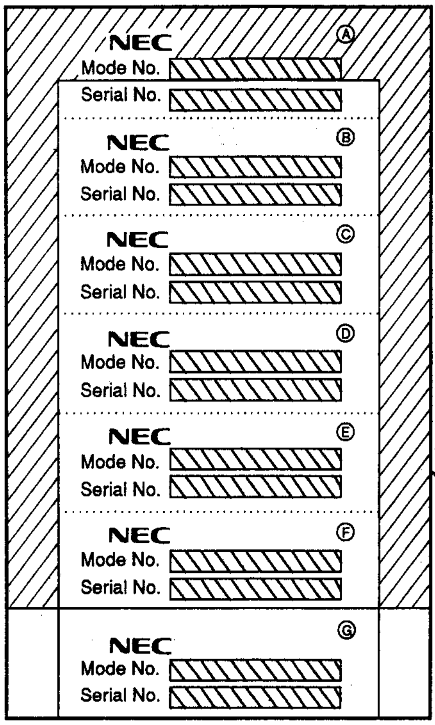
PACKAINGING

Print as shown below on the bar code serial label (1676179) and apply it to the back of the cardboard.


Commodity code
Serial number
*0 1 1 3 7 2 3 5 * * * * 0 0 0 0 0 0 0 0 *
XM-2950
Model number


About 50
NEC
Rear

(2) XM-2950G

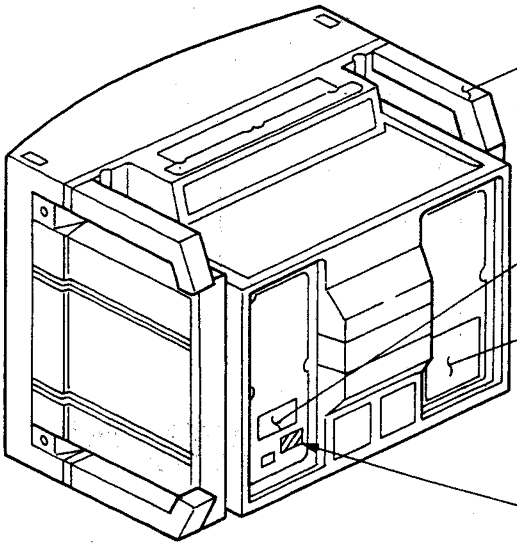

NEC
Ⓐ
Mode No.
Serial No.
NEC
Ⓑ
Mode No.
Serial No.
NEC
Ⓒ
Mode No.
Serial No.
NEC
Ⓓ
Mode No.
Serial No.
NEC
Ⓔ
Mode No.
Serial No.
NEC
Ⓕ
Mode No.
Serial No.
NEC
Ⓖ
Mode No.
Serial No.

Srial No. Label
24L29421

① ▧ Print Model No. and Serial No. on a total of 7 labels, Ⓐ to Ⓖ, as indicatied by shaded parts.

② ▨ Peel the stickers (shaded parts) off and stick them Ⓐ to Ⓕ, to the cardboard box in the upper part of its left aside.

③ Peel label Ⓖ off from the board and stick it to the terminal board R of the set in the lower right part of it.
(below the nameplate on the back).



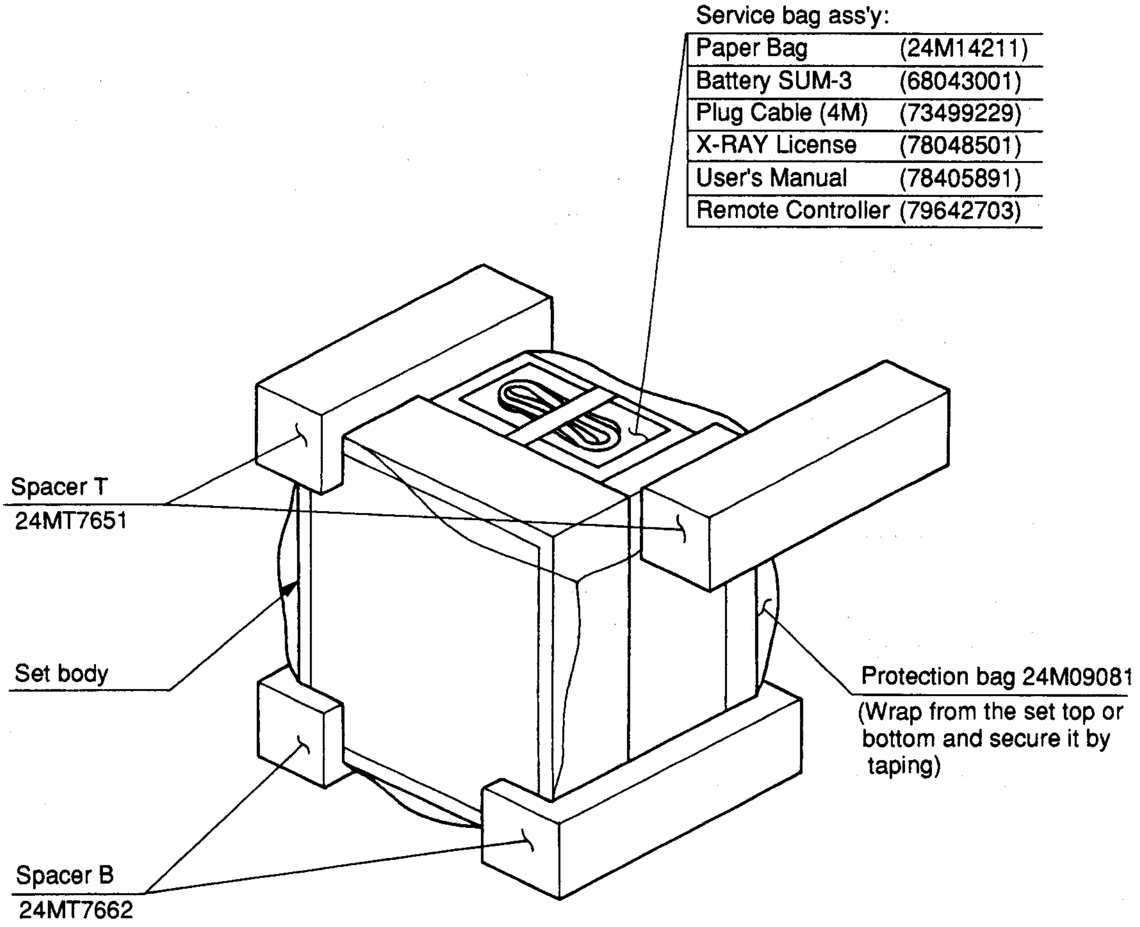
Cabinet Back Assy
24DT3972

UL Back nameplate

Label (DIP SWITCH)
24L30492

Serial number label
24L29421

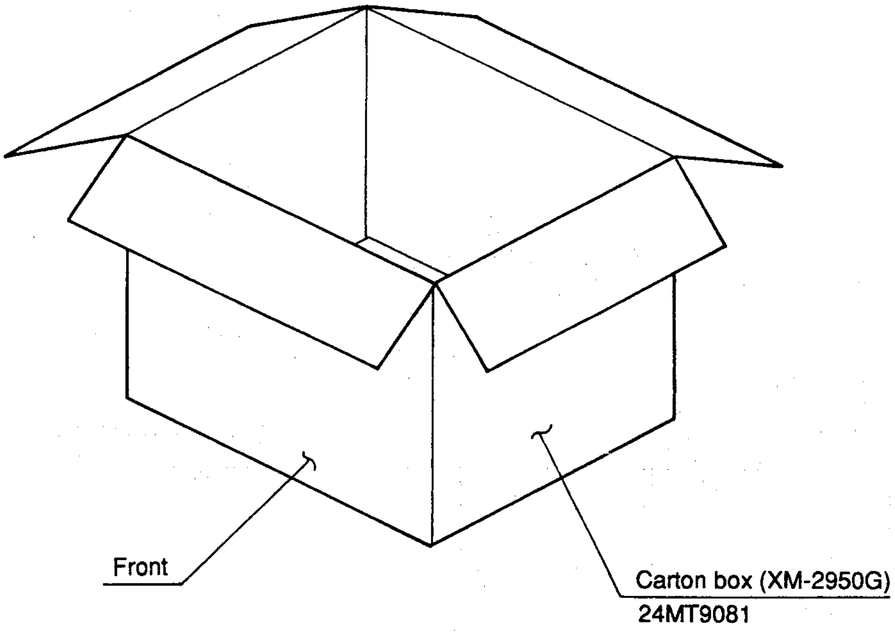
PACKAINGING



Service bag ass'y:

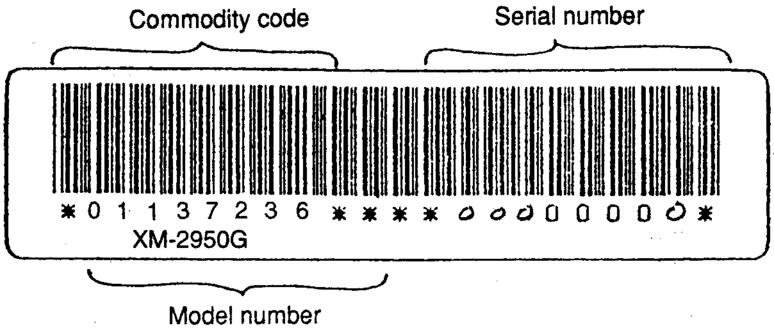
Paper Bag	(24M14211)
Battery SUM-3	(68043001)
Plug Cable (4M)	(73499229)
X-RAY License	(78048501)
User's Manual	(78405891)
Remote Controller	(79642703)

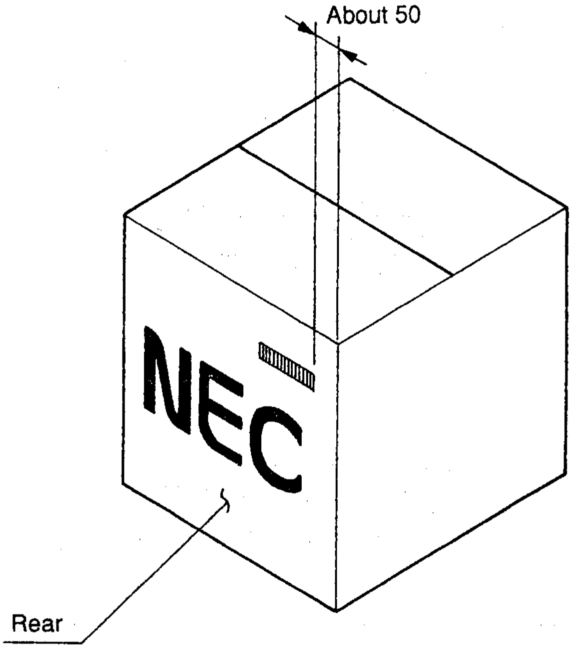
Spacer T
24MT7651
Set body
Protection bag 24M09081
(Wrap from the set top or bottom and secure it by taping)
Spacer B
24MT7662



Front
Carton box (XM-2950G)
24MT9081

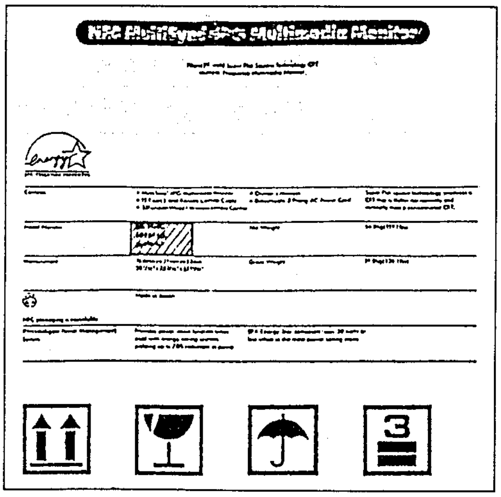
Print as shown below on the bar code serial label (1676179) and apply it to the back of the cardboard.


Commodity code
Serial number
* 0 1 1 3 7 2 3 6 * * * * 0 0 0 0 0 0 0 0 *
XM-2950G
Model number


About 50
NEC
Rear

Enter "V" with a felt-tip pen in "☐XM-2950G" of the "Model Number" at the two sides of the cardboard box.

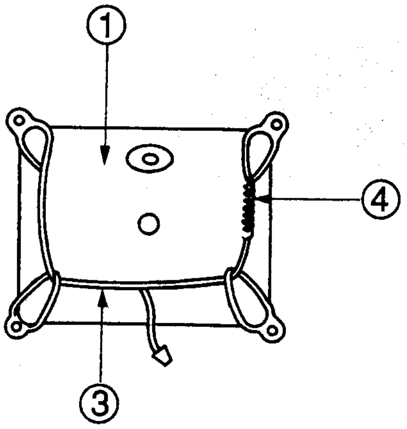
☑ XM-2950G
☐ XM-2950J

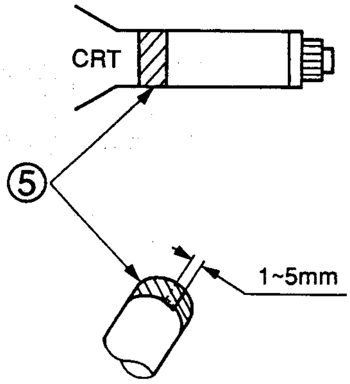


Side of the cardboard box

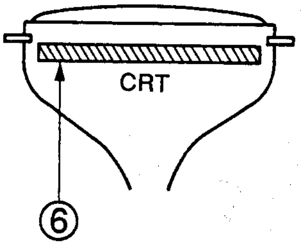
WIRING METHOD

Make assembly of CRT.





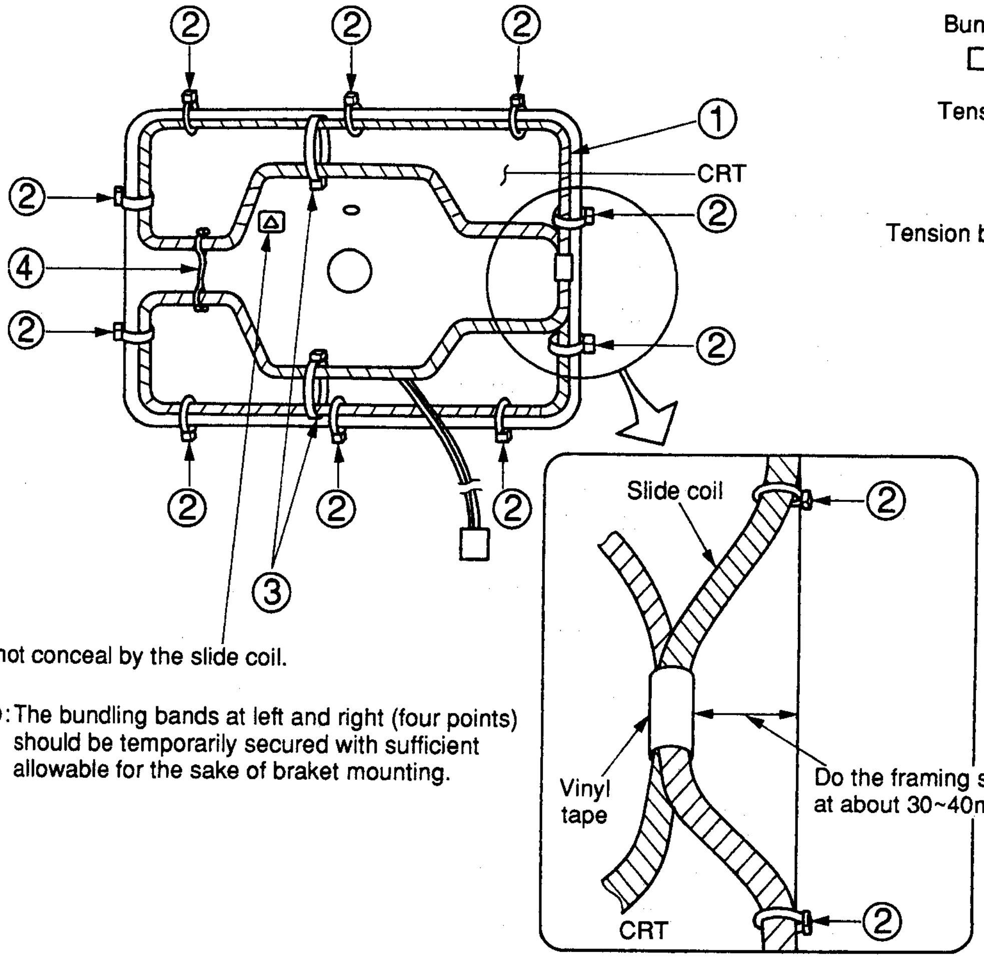
The mating seam of the tape to be wound shall be 1~5mm



(Apply the filament tape so that the step difference between the tension band and the CRT is hidden.)

* Apply the tape at upper and lower points (2 points).

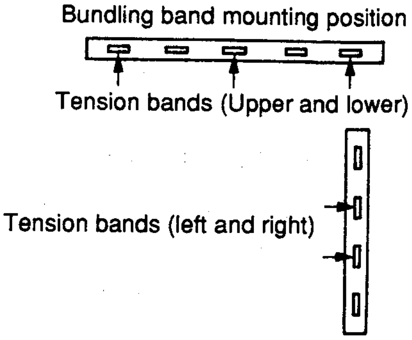
No.	Part Name
1	CRT-A68KZN696X (T)
2	Braiding wire SASSY
3	CRT ground SASSY
4	Coil spring
5	Scotch cotton tape #29 19x93mm
6	Filament tape 30x450mm


②
②
②
①
CRT
②
②
④
②
②
②
②
②
③
Slide coil
②
Vinyl
tape
CRT
②

Do not conceal by the slide coil.

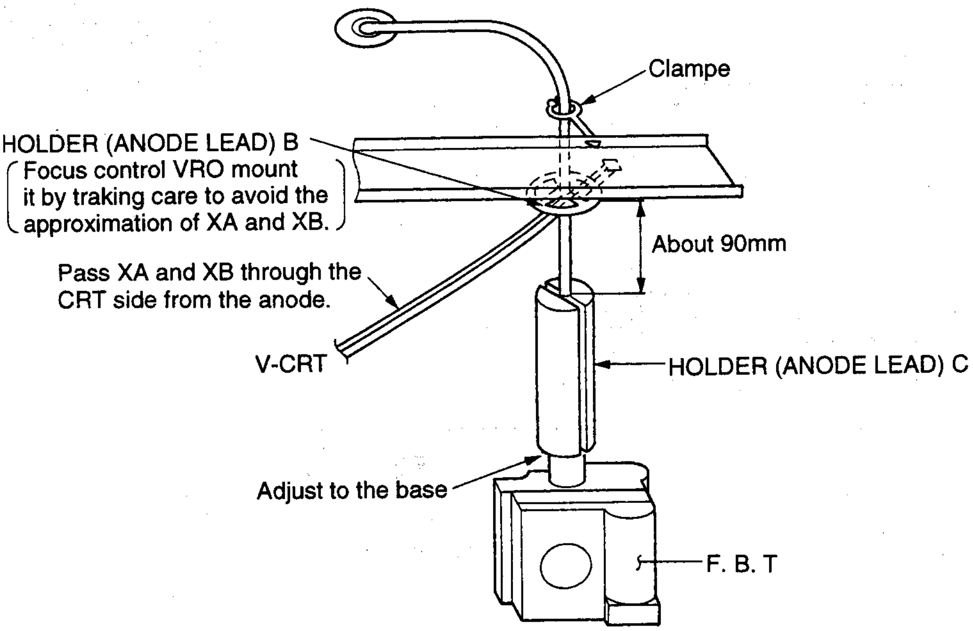
※②:The bundling bands at left and right (four points) should be temporarily secured with sufficient allowable for the sake of braket mounting.

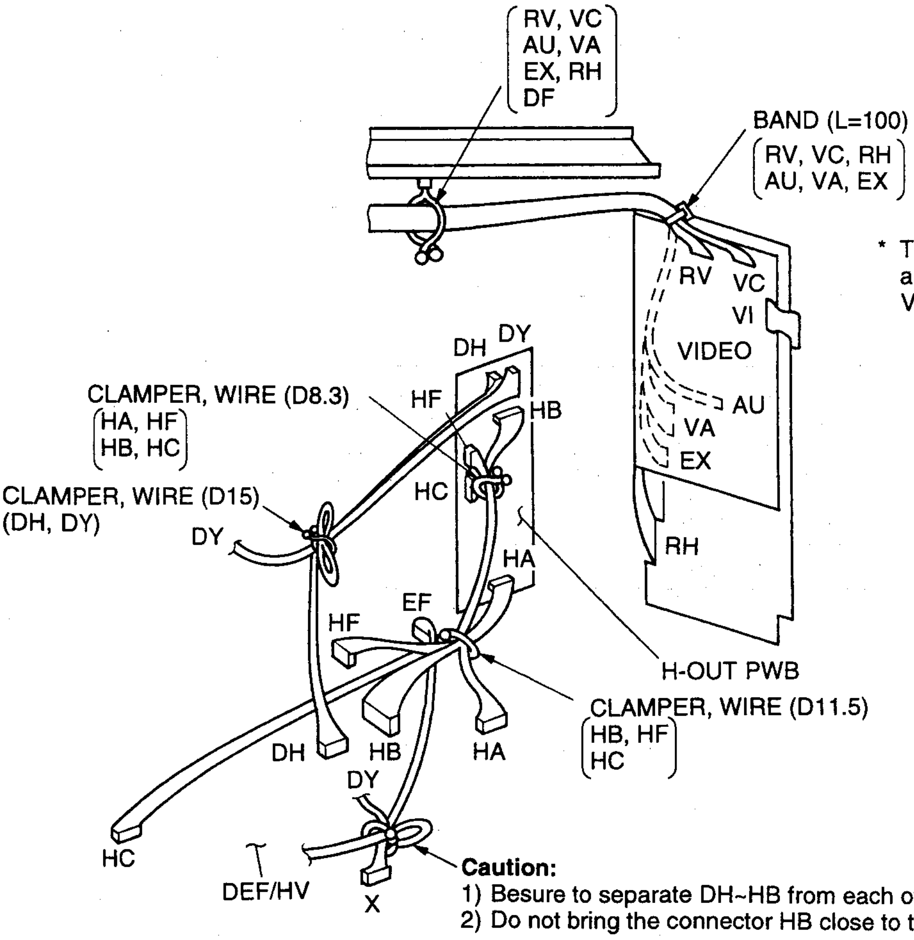
Do the framing so that bundling done at about 30~40mm from the CRT end.


Bundling band mounting position
Tension bands (Upper and lower)
Tension bands (left and right)

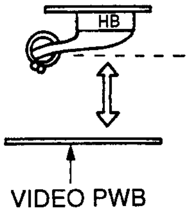
No.	Part Name
1	Slide coil (05H 40T 2P)
2	Bundling band (L=100)
3	Bundling band (203)
4	Lead clamper

WIRING METHOD


Clampe
HOLDER (ANODE LEAD) B
Focus control VRO mount it by traking care to avoid the approximation of XA and XB.
Pass XA and XB through the CRT side from the anode.
About 90mm
V-CRT
HOLDER (ANODE LEAD) C
Adjust to the base
F. B. T

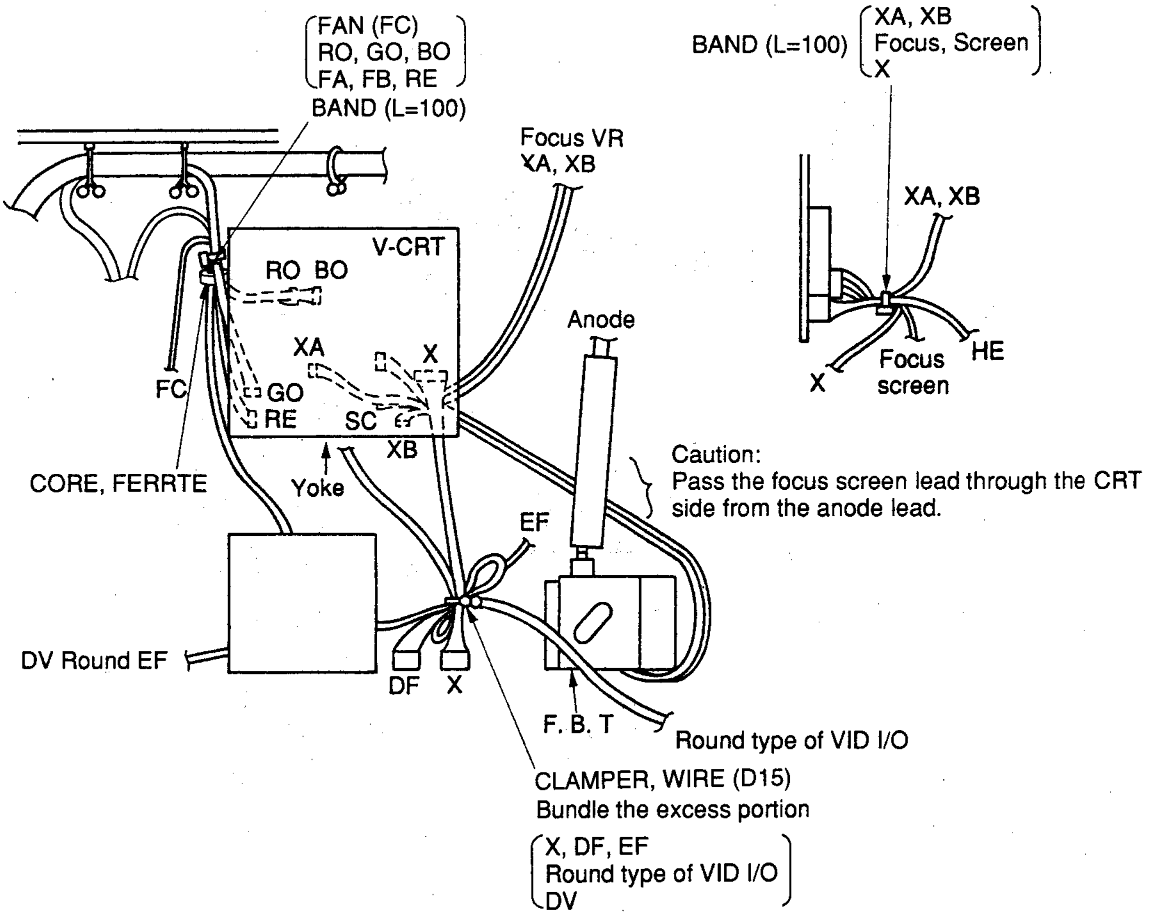

RV, VC
AU, VA
EX, RH
DF
BAND (L=100)
RV, VC, RH
AU, VA, EX
RV
VC
VI
VIDEO
AU
VA
EX
RH
DH
DY
CLAMPER, WIRE (D8.3)
HA, HF
HB, HC
HF
HB
HC
CLAMPER, WIRE (D15)
(DH, DY)
DY
HA
EF
HF
H-OUT PWB
CLAMPER, WIRE (D11.5)
HB, HF
HC
DH
HB
HA
DY
HC
DEF/HV
X

* The connectors of RH, EX, VA and AU shall not pass over the VIDEO PWB.


HB
VIDEO PWB

Caution:

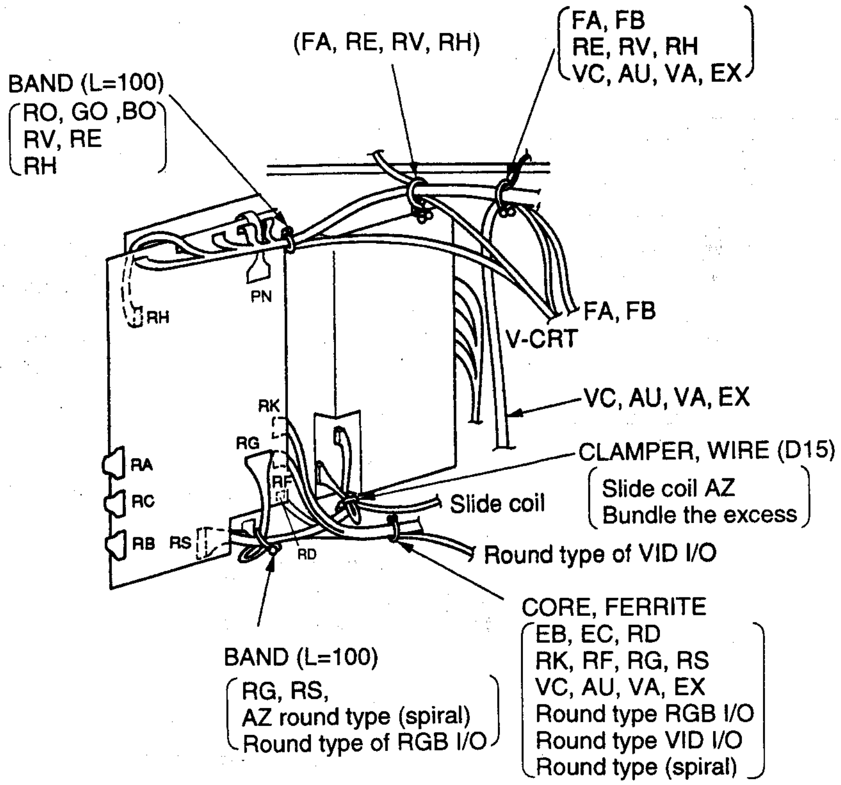
1) Besure to separate DH~HB from each other.
2) Do not bring the connector HB close to the Video PWB.

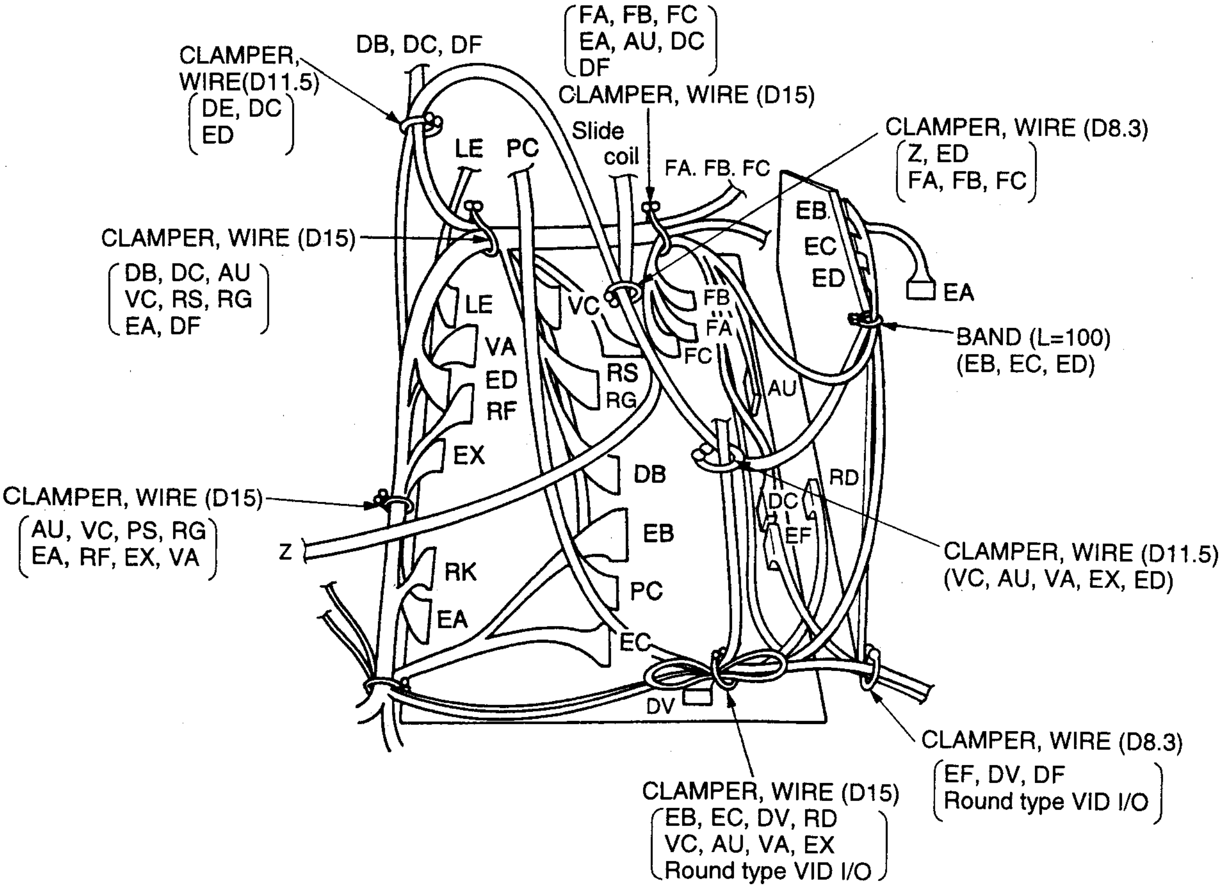

FAN (FC)
RO, GO, BO
FA, FB, RE
BAND (L=100)
Focus VR
XA, XB
BAND (L=100)
XA, XB
Focus, Screen
X
XA, XB
V-CRT
RO BO
XA
X
GO
RE
SC
XB
FC
Anode
Focus
screen
HE
X
CORE, FERRTE
Yoke
EF
DV Round EF
DF
X
F. B. T
Round type of VID I/O

Caution:
Pass the focus screen lead through the CRT side from the anode lead.

CLAMPER, WIRE (D15)
Bundle the excess portion
(X, DF, EF
Round type of VID I/O
DV)

WIRING METHOD


(FA, RE, RV, RH)
FA, FB
RE, RV, RH
VC, AU, VA, EX
BAND (L=100)
RO, GO ,BO
RV, RE
RH
RH
PN
FA, FB
V-CRT
VC, AU, VA, EX
RK
RG
RA
RC
RB
RS
RF
RD
CLAMPER, WIRE (D15)
Slide coil AZ
Bundle the excess
Slide coil
Round type of VID I/O
CORE, FERRITE
EB, EC, RD
RK, RF, RG, RS
VC, AU, VA, EX
Round type RGB I/O
Round type VID I/O
Round type (spiral)
BAND (L=100)
RG, RS,
AZ round type (spiral)
Round type of RGB I/O


CLAMPER, WIRE(D11.5)
DE, DC
ED
DB, DC, DF
FA, FB, FC
EA, AU, DC
DF
CLAMPER, WIRE (D15)
Slide coil
FA. FB. FC
CLAMPER, WIRE (D8.3)
Z, ED
FA, FB, FC
LE
PC
EB
EC
ED
EA
CLAMPER, WIRE (D15)
DB, DC, AU
VC, RS, RG
EA, DF
LE
VC
FB
FA
FC
BAND (L=100)
(EB, EC, ED)
VA
ED
RF
RS
RG
AU
EX
DB
RD
CLAMPER, WIRE (D15)
AU, VC, PS, RG
EA, RF, EX, VA
Z
DC
EF
EB
CLAMPER, WIRE (D11.5)
(VC, AU, VA, EX, ED)
RK
EA
PC
EC
DV
CLAMPER, WIRE (D8.3)
EF, DV, DF
Round type VID I/O
CLAMPER, WIRE (D15)
EB, EC, DV, RD
VC, AU, VA, EX
Round type VID I/O

REPLACEMENT PART LIST

Notes:

1. Parts orders must contain model name, parts number and description.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. Sheets.
3. Standard resistors, capacitors and coils which are normally available from local electronics suppliers are not stocked in our warehouse.
4. The components identitied by a ⚠mark or with the symbol Nos. shaded are critical for safety. Replace only with parts number specitied.

XM-2950

SYMBOL	PARTS NO	DESCRIPTION
*** CRT & TUNER ***		
CRT	33029031	CRT-A68KZN696X(TG) TO
*** ICS ***		
IC1001	37058674	MOS UPD78014CW-062 (CPU)
IC1002	37074244	MOS ST24C04B1 (EEPROM)
IC1003	371E1514	IC PST529D-2(T)(VOLTAGE D
IC1004	371E1568	IC PST529G-2(T)(3.3V RES)
IC1005	37058114	MOS UPD6326C (D/A)
IC1006	37058477	MOS UPD6345C (DRIVER)
⚠IC2001	37011206	IC XRA10358 (OP-AMP)
⚠IC201	37005059	IC UPC7815H (REG)
IC301	37001086	IC TA8211AH (AMP)
IC302	37001075	IC UPC1406HA (DC-CONT)
IC4001	37011206	IC XRA10358 (OP-AMP)
IC4002	37056618	IC BA6110
IC4003	37011206	IC XRA10358 (OP-AMP)
IC4005	37011206	IC XRA10358 (OP-AMP)
IC4006	37011206	IC XRA10358 (OP-AMP)
IC4501	37011206	IC XRA10358 (OP-AMP)
IC5010	37058477	MOS UPD6345C (DRIVER)
IC5011	37011206	IC XRA10358 (OP-AMP)
IC5012	37011206	IC XRA10358 (OP-AMP)
IC5013	37056178	IC UPC1555C
IC5301	37056618	IC BA6110
IC5302	37011206	IC XRA10358 (OP-AMP)
IC5401	37101395	IC BA10324
IC5402	37056618	IC BA6110
IC5403	37101395	IC BA10324
IC5501	37056618	IC BA6110
IC5502	37101395	IC BA10324
IC5503	37101395	IC BA10324
IC5504	37056618	IC BA6110
IC5505	37101395	IC BA10324
IC5506	37101395	IC BA10324
IC5507	37056877	IC NJM4200D (MULTIPLIER)
IC5508	37056877	IC NJM4200D (MULTIPLIER)
IC5509	37056618	IC BA6110
IC5510	37101395	IC BA10324
⚠IC631	79T06442	IC SI-3240C
⚠IC632	79T06422	IC PQ30RV1
⚠IC633	79T06421	IC PQ15RF2
⚠IC634	79T05927	IC PQ30RV11
⚠IC635	79T06419	IC NJM79M12FA
⚠IC636	79T04836	IC NJM78M12FA
⚠IC637	79T04837	IC NJM78M06FA
⚠IC661	79T05925	IC M51977P
⚠IC681	79T06354	IC NJM431L
IC7002	37011186	IC LVA522S (VIDEO-SW)
⚠IC7003	37101501	IC UPC78M09H
IC7004	37011293	IC MM1112XS (V-SW)
IC7005	37011186	IC LVA522S (VIDEO-SW)
IC701	37011185	IC LVA521S (VIDEO-SW)
IC702	37011185	IC LVA521S (VIDEO-SW)
IC703	37011185	IC LVA521S (VIDEO-SW)
IC7101	37011122	IC M51386L (COMB FILTER)
IC7201	37011228	IC HA11465A (V-AMP)
IC7301	37053122	MOS UPD74HC123AC
IC7401	37003033	IC AN5625 (PAL)
⚠IC7402	37005011	IC UPC78M12H (REC)
IC750	37053002	MOS UPD4052BC (MPX)
IC801	37056867	IC M52036SP
IC802	37051036	MOS UPD4066BC
IC803	37011018	IC UPC311C (COMP)
IC804	37011262	IC XRA10393 (COMP)
IC805	37011018	IC UPC311C (COMP)
IC8101	37053114	MOS UPD74HC221AC (V1B)
IC8201	37051378	MOS UPD4053BC (MPX)
IC8301	37056245	IC M51387P
⚠IC8601	37005153	IC UPC2412HF (REG)
⚠IC8602	37011025	IC UPC7824H (REG)
IC8701	37009016	IC UPC1377C (HORI)
IC8702	37151249	MOS UPD4538BC (NEC-B)
IC8802	37053114	MOS UPD74HC221AC (V1B)
IC890	37074324	MOS 24LC21-I/P (E-EPROM)
IC9001	37056494	IC LA7853
IC9002	37051179	IC SN74LS123N (MONO MLT)
IC9003	37011018	IC UPC311C (COMP)

REPLACEMENT PARTS LIST

SYMBOL	PARTS NO	DESCRIPTION
IC9004	37101395	IC BA10324
IC9005	37011206	IC XRA10358 (OP-AMP)
IC9006	37056975	IC M62356P
IC9007	37011024	IC UPC3403C (OP-AMP)
IC9008	37011024	IC UPC3403C (OP-AMP)
IC9009	37011206	IC XRA10358 (OP-AMP)
IC9014	37011024	IC UPC3403C (OP-AMP)
IC9015	37011262	IC XRA10393 (COMP)

*** TRANSISTORS ***

SYMBOL	PARTS NO	DESCRIPTION
Q1001	350K5718	TR 2SA933S-T R
Q1002	350E3218	TR 2SC1740S-T R
Q1003	350K5718	TR 2SA933S-T R
Q1004	351G0601	TR DTC114ES-T
Q1005	351G0602	TR DTC144ES-T
Q1006	350H5018	TR,2SC3811-TA R
Q1007	351G0602	TR DTC144ES-T
Q1008	350E3218	TR 2SC1740S-T R
Q1009	350E3218	TR 2SC1740S-T R
⚠Q2001	350E3218	TR 2SC1740S-T R
⚠Q2002	350K5718	TR 2SA933S-T R
⚠Q2003	351G0561	TR DTA144ES-T
Q2004	351G0602	TR DTC144ES-T
Q301	350E3218	TR 2SC1740S-T R
Q303	350K5718	TR 2SA933S-T R
Q4001	350K5718	TR 2SA933S-T R
Q4002	350K5718	TR 2SA933S-T R
Q4003	350H5812	TR 2SC3615-T L
Q4004	351G0601	TR DTC114ES-T
Q4005	350K5718	TR 2SA933S-T R
Q4006	351G0601	TR DTC114ES-T
Q4501	35094803	TR 2SC2336B
Q4502	350H4418	TR,2SC1473-TA R
Q4503	350E3218	TR 2SC1740S-T R
Q4504	35091112	TR 2SC2371 L
Q4505	35025212	TR 2SB546 L
Q4506	35031817	TR 2SB940A Q
Q4507	35063412	TR 2SD401A L
Q4508	35071917	TR 2SD1264A Q
Q4509	35025212	TR 2SB546 L
Q4510	35063412	TR 2SD401A L
Q4511	351G0601	TR DTC114ES-T
Q4512	350E3218	TR 2SC1740S-T R
Q4513	350H4418	TR,2SC1473-TA R
Q5010	351G0561	TR DTA144ES-T
Q5011	351G0602	TR DTC144ES-T
Q5015	350A1500	TR 2SA1767-TA
Q5016	35122500	TR 2SK758
Q5017	350E3218	TR 2SC1740S-T R
Q5018	350K5718	TR 2SA933S-T R
Q5019	350H5018	TR,2SC3811-TA R
Q5020	35050917	TR 2SC1384 Q
Q5021	35011950	TR 2SA684
Q5024	350E3218	TR 2SC1740S-T R
Q5025	350K5718	TR 2SA933S-T R
Q5026	35122500	TR 2SK758
Q5027	35025212	TR 2SB546 L
Q5029	35122500	TR 2SK758
Q5030	350E3212	TR 2SC2002-T L
Q5031	350K4412	TR 2SA952 L,AT
Q5032	350E3218	TR 2SC1740S-T R
Q5033	350E3218	TR 2SC1740S-T R
Q5034	35063412	TR 2SD401A L
Q5035	35063412	TR 2SD401A L
Q5036	35127580	TR 2SK1642
Q5037	35127580	TR 2SK1642
Q5038	35127580	TR 2SK1642
Q5039	35127580	TR 2SK1642
Q5040	35127580	TR 2SK1642
Q5041	35094803	TR 2SC2336B
Q5042	350H4418	TR,2SC1473-TA R
Q5043	350K5718	TR 2SA933S-T R
Q5044	350K5718	TR 2SA933S-T R
Q5046	350H4418	TR,2SC1473-TA R
Q5047	350E3218	TR 2SC1740S-T R
Q5048	350K5718	TR 2SA933S-T R
Q5050	350E3218	TR 2SC1740S-T R
Q5051	351G0561	TR DTA144ES-T
Q5052	350K5718	TR 2SA933S-T R
Q5055	350H5018	TR,2SC3811-TA R
Q5056	351G0601	TR DTC114ES-T
Q5057	35127580	TR 2SK1642
Q5301	35095070	TR 2SC4710
Q5302	35095070	TR 2SC4710
Q5303	350K5718	TR 2SA933S-T R
Q5304	350K5718	TR 2SA933S-T R
Q5305	350E3218	TR 2SC1740S-T R
Q5308	350K5718	TR 2SA933S-T R
Q5401	350E3218	TR 2SC1740S-T R
Q5402	351G0561	TR DTA144ES-T
Q5403	35063412	TR 2SD401A L
Q5404	35063412	TR 2SD401A L
Q5405	350K5718	TR 2SA933S-T R
Q5406	351G0561	TR DTA144ES-T
Q5407	351G0602	TR DTC144ES-T
Q5408	351G0561	TR DTA144ES-T
Q5409	351G0561	TR DTA144ES-T
Q5410	351G0561	TR DTA144ES-T
Q5411	351G0561	TR DTA144ES-T
Q5412	351G0602	TR DTC144ES-T
Q5413	351G0561	TR DTA144ES-T
⚠Q5451	35122800	TR 2SK1271
⚠Q5452	35122800	TR 2SK1271
Q5453	35127570	TR 2SK2223-01
⚠Q5454	35094300	TR 2SC3998
Q5501	351G0602	TR DTC144ES-T
Q5502	350K5718	TR 2SA933S-T R
Q5503	350K5718	TR 2SA933S-T R
Q5508	350K5718	TR 2SA933S-T R
Q5509	350E3218	TR 2SC1740S-T R
Q5510	350K5718	TR 2SA933S-T R
⚠Q601	79T06417	TR IRFPE40
⚠Q602	79T06417	TR IRFPE40
⚠Q603	79T06382	TR 2SC3751
Q631	79T06251	TR 2SB810
Q671	79T06381	TR 2SC3330
Q681	79T05931	TR,DTC114ES
Q682	79T06309	TR 2SC2785
Q683	79T05934	TR,DTA114ES
Q684	79T06251	TR 2SB810
Q7001	350E3218	TR 2SC1740S-T R
Q7002	350J3016	TR 2SC2926S-T P
Q7003	350E3218	TR 2SC1740S-T R
Q701	350E3218	TR 2SC1740S-T R
Q702	351G0601	TR DTC114ES-T
Q704	350E3218	TR 2SC1740S-T R
Q705	350E3218	TR 2SC1740S-T R
Q706	350E3218	TR 2SC1740S-T R
Q707	350E3218	TR 2SC1740S-T R
Q710	350E3218	TR 2SC1740S-T R
Q7101	350E3218	TR 2SC1740S-T R
Q7102	350E3218	TR 2SC1740S-T R
Q7103	350E3218	TR 2SC1740S-T R
Q7104	350J3016	TR 2SC2926S-T P
Q7201	350E3218	TR 2SC1740S-T R
Q7202	350K5718	TR 2SA933S-T R
Q7203	350E3218	TR 2SC1740S-T R
Q7204	350E3218	TR 2SC1740S-T R
Q7205	350E3218	TR 2SC1740S-T R
Q7206	350E3218	TR 2SC1740S-T R
Q7207	351G0601	TR DTC114ES-T
Q7208	350K5718	TR 2SA933S-T R
Q7209	350E3218	TR 2SC1740S-T R
Q7210	350E3218	TR 2SC1740S-T R
Q7401	350E3218	TR 2SC1740S-T R
Q7402	350E3218	TR 2SC1740S-T R
Q7403	350K5718	TR 2SA933S-T R
Q7404	350E3218	TR 2SC1740S-T R
Q7405	350E3218	TR 2SC1740S-T R
Q7406	350K5718	TR 2SA933S-T R
Q7407	350E3218	TR 2SC1740S-T R
Q7408	350E3218	TR 2SC1740S-T R
Q7409	350K5718	TR 2SA933S-T R
Q7410	350E3218	TR 2SC1740S-T R
Q751	350E3218	TR 2SC1740S-T R
Q752	350E3218	TR 2SC1740S-T R

SYMBOL	PARTS NO	DESCRIPTION
Q8001	350E3218	TR 2SC1740S-T R
Q8002	350E3218	TR 2SC1740S-T R
Q8003	350E3218	TR 2SC1740S-T R
Q8004	350E3218	TR 2SC1740S-T R
Q8005	350E3218	TR 2SC1740S-T R
Q8006	350E3218	TR 2SC1740S-T R
Q8007	350E3218	TR 2SC1740S-T R
Q8008	350E3218	TR 2SC1740S-T R
Q8009	350E3218	TR 2SC1740S-T R
Q8010	351G0602	TR DTC144ES-T
Q8011	351G0561	TR DTA144ES-T
Q8012	351G0602	TR DTC144ES-T
Q8013	351G0561	TR DTA144ES-T
Q8014	351G0602	TR DTC144ES-T
Q8015	350E3218	TR 2SC1740S-T R
Q8016	350E3218	TR 2SC1740S-T R
Q802	351G0602	TR DTC144ES-T
Q803	351G0602	TR DTC144ES-T
Q804	351G0602	TR DTC144ES-T
Q805	351G0602	TR DTC144ES-T
Q810	351G0561	TR DTA144ES-T
Q8101	350E3218	TR 2SC1740S-T R
Q8102	350E3218	TR 2SC1740S-T R
Q8103	351G0602	TR DTC144ES-T
Q811	351G0602	TR DTC144ES-T
Q8201	351G0602	TR DTC144ES-T
Q8301	351G0601	TR DTC114ES-T
Q8401	350K5718	TR 2SA933S-T R
Q8402	350K5718	TR 2SA933S-T R
Q8403	350K5718	TR 2SA933S-T R
Q8404	350H5018	TR,2SC3811-TA R
Q8405	350H5018	TR,2SC3811-TA R
Q8406	350H5018	TR,2SC3811-TA R
Q8407	350E3218	TR 2SC1740S-T R
Q8408	350E3218	TR 2SC1740S-T R
Q8409	350E3218	TR 2SC1740S-T R
Q8410	35089305	TR 2SC3504 E
Q8411	35089305	TR 2SC3504 E
Q8412	35089305	TR 2SC3504 E
Q8413	350E3218	TR 2SC1740S-T R

SYMBOL	PARTS NO	DESCRIPTION
Q8414	350E3218	TR 2SC1740S-T R
Q8415	350E3218	TR 2SC1740S-T R
Q8416	35089305	TR 2SC3504 E
Q8417	35089305	TR 2SC3504 E
Q8418	35089305	TR 2SC3504 E
Q8419	35010505	TR 2SA1433 E
Q8420	35010505	TR 2SA1433 E
Q8421	35010505	TR 2SA1433 E
Q8422	351G0561	TR DTA144ES-T
Q8501	351G0602	TR DTC144ES-T
Q8701	351G0602	TR DTC144ES-T
Q8702	351G0602	TR DTC144ES-T
Q8703	351G0602	TR DTC144ES-T
Q8704	350E3218	TR 2SC1740S-T R
Q8705	350E3218	TR 2SC1740S-T R
Q9001	35011911	TR 2SA1349 GR
Q9002	35094991	TR 2SC3381 GR
Q9003	35094991	TR 2SC3381 GR
Q9004	350K5718	TR 2SA933S-T R
Q9005	350E3218	TR 2SC1740S-T R
Q9006	350K5718	TR 2SA933S-T R
Q9007	351B7510	TR 2SK982(TPE2)
Q9008	350K5718	TR 2SA933S-T R
Q9009	350H5018	TR,2SC3811-TA R
Q901	35084401	TR 2SC3063-RL
Q9012	35065417	TR,2SD882 Q
Q9013	35065417	TR,2SD882 Q
Q9014	35065417	TR,2SD882 Q
Q902	35084401	TR 2SC3063-RL
Q903	35084401	TR 2SC3063-RL
Q904	35007205	TR 2SA1381 E
Q9049	351G0601	TR DTC114ES-T
Q905	35007205	TR 2SA1381 E
Q906	35007205	TR 2SA1381 E
Q9060	351G0601	TR DTC114ES-T
Q9061	350E3218	TR 2SC1740S-T R
Q9062	351G0601	TR DTC114ES-T
Q9063	350K5718	TR 2SA933S-T R
Q9064	350K5718	TR 2SA933S-T R
Q9065	350E3218	TR 2SC1740S-T R

SYMBOL	PARTS NO	DESCRIPTION
Q9066	350K5718	TR 2SA933S-T R
Q9067	351G0601	TR DTC114ES-T
Q9068	350E3218	TR 2SC1740S-T R
Q9069	351G0600	TR DTA114ES-T
Q907	35092200	TR 2SC4158
Q9070	351G0602	TR DTC144ES-T
Q908	35092200	TR 2SC4158
Q909	35092200	TR 2SC4158
Q910	35089505	TR 2SC3950 E
Q911	35089505	TR 2SC3950 E
Q912	35089505	TR 2SC3950 E
Q916	350E3218	TR 2SC1740S-T R
Q917	350E3218	TR 2SC1740S-T R
Q918	350E3218	TR 2SC1740S-T R

*** DIODES ***

SYMBOL	PARTS NO	DESCRIPTION
CR681	79T05944	DIODE DRA01B
D1001	360K1048	DIODE 1SS253
D1002	360K1048	DIODE 1SS253
D1003	360K1048	DIODE 1SS253
D1004	360K1048	DIODE 1SS253
D1005	360K1048	DIODE 1SS253
D1006	361K7522	DIODE ERA15-02 V1
D1007	361K7522	DIODE ERA15-02 V1
D1008	360K1048	DIODE 1SS253
D1009	360K1048	DIODE 1SS253
D101	36801023	LED SEL1320G
D1010	360K1048	DIODE 1SS253
D1011	360K1048	DIODE 1SS253
D1012	360K1048	DIODE 1SS253
D1013	360K1048	DIODE 1SS253
D1014	360K1048	DIODE 1SS253
D1015	360K1048	DIODE 1SS253
D1016	360K1048	DIODE 1SS253
D1017	360K1048	DIODE 1SS253
D1018	360K1048	DIODE 1SS253
D1019	360K1048	DIODE 1SS253
D102	36801308	LED SEL1820D
D103	36801308	LED SEL1820D
D104	36801308	LED SEL1820D

SYMBOL	PARTS NO	DESCRIPTION
D105	36801308	LED SEL1820D
⚠D2001	361K7562	DIODE EGP10G G23
⚠D2002	360K1048	DIODE 1SS253
⚠D2003	360K1048	DIODE 1SS253
D2004	360K1048	DIODE 1SS253
D202	360K1048	DIODE 1SS253
D203	360K1048	DIODE 1SS253
D204	360K1048	DIODE 1SS253
D301	360K1048	DIODE 1SS253
D302	360K1048	DIODE 1SS253
D303	360K1048	DIODE 1SS253
D304	360K1048	DIODE 1SS253
D305	360K1048	DIODE 1SS253
D4001	360K1048	DIODE 1SS253
D4501	360K1048	DIODE 1SS253
D4502	361K7523	DIODE ERA15-04
D4503	360K1048	DIODE 1SS253
D4504	360K1048	DIODE 1SS253
D4505	360K1048	DIODE 1SS253
D4506	360K1048	DIODE 1SS253
D4507	360K1048	DIODE 1SS253
D4508	360K1048	DIODE 1SS253
D4509	360K1048	DIODE 1SS253
D4510	36001048	DIODE 1SS253
D5004	36107638	DIODE EGP30G
D5005	360K1048	DIODE 1SS253
D5006	360K1048	DIODE 1SS253
⚠D5009	361K7259	DIODE CGJ-1
⚠D5009B	361K7259	DIODE CGJ-1
D5010	36107638	DIODE EGP30G
D5011	360K1048	DIODE 1SS253
D5012	360K1048	DIODE 1SS253
D5013	369K2136	DIODE RGP10G,AT
D5014	369K2136	DIODE RGP10G,AT
D5015	36107293	DIODE RK14
D5015B	36107293	DIODE RK14
D5016	36107293	DIODE RK14
D5019	360K1048	DIODE 1SS253
D5020	360K1048	DIODE 1SS253
D5028	360K1032	DIODE 1SS82-TA
D5029	360K1048	DIODE 1SS253

REPLACEMENT PARTS LIST

SYMBOL	PARTS NO	DESCRIPTION
D5030	361K7522	DIODE ERA15-02 V1
D5031	361K7505	DIODE ERB44-06V1
D5032	360K1048	DIODE 1SS253
D5033	360K1048	DIODE 1SS253
D5034	360K1048	DIODE 1SS253
D5035	360K1048	DIODE 1SS253
D5039	360K1048	DIODE 1SS253
D5040	360K1048	DIODE 1SS253
D5041	360K1048	DIODE 1SS253
D5042	360K1048	DIODE 1SS253
D5043	360K1048	DIODE 1SS253
D5044	360K1048	DIODE 1SS253
D5047	360K1048	DIODE 1SS253
D5048	360K1048	DIODE 1SS253
D5049	360K1048	DIODE 1SS253
⚠D5052	36107516	DIODE RP1H
D5055	360K1048	DIODE 1SS253
D5301	360K1048	DIODE 1SS253
D5302	360K1048	DIODE 1SS253
D5303	360K1048	DIODE 1SS253
D5304	360K1048	DIODE 1SS253
D5305	360K1037	DIODE 1SS83
D5401	360K1048	DIODE 1SS253
D5402	360K1048	DIODE 1SS253
D5403	360K1048	DIODE 1SS253
D5404	360K1048	DIODE 1SS253
D5405	360K1048	DIODE 1SS253
D5406	360K1048	DIODE 1SS253
D5407	360K1048	DIODE 1SS253
D5408	360K1048	DIODE 1SS253
⚠D5409	36107516	DIODE RP1H
⚠D5451	36107515	DIODE CTU-G3DR
D5452	360K1048	DIODE 1SS253
⚠D5460	361K7562	DIODE EGP10G G23
D5509	360K1048	DIODE 1SS253
D5510	360K1048	DIODE 1SS253
D5511	360K1048	DIODE 1SS253
D5512	360K1048	DIODE 1SS253
D5514	360K1048	DIODE 1SS253

SYMBOL	PARTS NO	DESCRIPTION
D5515	360K1048	DIODE 1SS253
D601	79T06423	DIODE RBV606
⚠D602	79T06409	DIODE EG01C
D603	79T06409	DIODE EG01C
D604	79T06400	DIODE AG01Z
D605	79T06409	DIODE EG01C
D606	79T06416	DIODE GMB01
D607	79T06416	DIODE GMB01
⚠D631	79T06413	DIODE ESAC39M-06ES
⚠D632	79T06413	DIODE ESAC39M-06ES
⚠D633	79T04994	DIODE ESAB92M-03
⚠D634	79T04994	DIODE ESAB92M-03
⚠D635	79T05948	DIODE ESAB92M-02
⚠D636	79T05948	DIODE ESAB92M-02
⚠D637	79T06412	DIODE ESAB82M-006
⚠D638	79T05939	DIODE ERA91-02
⚠D639	79T05939	DIODE ERA91-02
⚠D640	79T06411	DIODE ERA83-006
D641	79T06416	DIODE GMB01
D642	79T05939	DIODE ERA91-02
⚠D643	79T06416	DIODE GMB01
⚠D644	79T06416	DIODE GMB01
D671	79T06416	DIODE GMB01
D672	79T06416	DIODE GMB01
D681	79T06416	DIODE GMB01
D701	360K1048	DIODE 1SS253
D702	360K1048	DIODE 1SS253
D703	360K1048	DIODE 1SS253
D704	360K1048	DIODE 1SS253
D705	360K1048	DIODE 1SS253
D706	360K1048	DIODE 1SS253
D707	360K1048	DIODE 1SS253
D708	360K1048	DIODE 1SS253
D709	360K1048	DIODE 1SS253
D710	360K1048	DIODE 1SS253
D711	360K1048	DIODE 1SS253
D712	360K1048	DIODE 1SS253
D713	360K1048	DIODE 1SS253
D714	360K1048	DIODE 1SS253

SYMBOL	PARTS NO	DESCRIPTION
D715	360K1048	DIODE 1SS253
D716	360K1048	DIODE 1SS253
D717	361K7522	DIODE ERA15-02 V1
D718	361K7522	DIODE ERA15-02 V1
D7201	360K1048	DIODE 1SS253
D7202	360K1048	DIODE 1SS253
D8001	360K1048	DIODE 1SS253
D8002	360K1048	DIODE 1SS253
D8003	360K1048	DIODE 1SS253
D8004	360K1048	DIODE 1SS253
D8005	360K1048	DIODE 1SS253
D8006	360K1048	DIODE 1SS253
D8007	360K1048	DIODE 1SS253
D8008	360K1048	DIODE 1SS253
D8009	360K1048	DIODE 1SS253
D801	360K1048	DIODE 1SS253
D8010	360K1048	DIODE 1SS253
D8011	360K1048	DIODE 1SS253
D802	360K1048	DIODE 1SS253
D803	360K1048	DIODE 1SS253
D804	360K1048	DIODE 1SS253
D805	360K1048	DIODE 1SS253
D806	360K1048	DIODE 1SS253
D807	360K1048	DIODE 1SS253
D808	360K1048	DIODE 1SS253
D809	360K1048	DIODE 1SS253
D810	360K1048	DIODE 1SS253
D8101	360K1048	DIODE 1SS253
D8102	360K1048	DIODE 1SS253
D8103	360K1048	DIODE 1SS253
D811	360K1048	DIODE 1SS253
D812	360K1048	DIODE 1SS253
D813	360K1048	DIODE 1SS253
D814	360K1048	DIODE 1SS253
D815	360K1048	DIODE 1SS253
D816	360K1048	DIODE 1SS253
D8201	360K1048	DIODE 1SS253
D8202	360K1048	DIODE 1SS253
D821	360K1048	DIODE 1SS253
D822	360K1048	DIODE 1SS253

SYMBOL	PARTS NO	DESCRIPTION
D823	360K1048	DIODE 1SS253
D824	360K1048	DIODE 1SS253
D825	360K1048	DIODE 1SS253
D826	360K1048	DIODE 1SS253
D827	360K1048	DIODE 1SS253
D828	360K1048	DIODE 1SS253
D829	360K1048	DIODE 1SS253
D830	360K1048	DIODE 1SS253
D8301	360K1048	DIODE 1SS253
D831	360K1048	DIODE 1SS253
D832	360K1048	DIODE 1SS253
D833	360K1048	DIODE 1SS253
D834	360K1048	DIODE 1SS253
D835	360K1048	DIODE 1SS253
D836	360K1048	DIODE 1SS253
D837	360K1048	DIODE 1SS253
D838	360K1048	DIODE 1SS253
D839	360K1048	DIODE 1SS253
D8401	360K1048	DIODE 1SS253
D8402	360K1048	DIODE 1SS253
D8403	360K1048	DIODE 1SS253
D8404	360K1048	DIODE 1SS253
D8405	360K1048	DIODE 1SS253
D8406	360K1048	DIODE 1SS253
D8407	360K1048	DIODE 1SS253
D8408	360K1048	DIODE 1SS253
D8409	360K1048	DIODE 1SS253
D8410	360K1048	DIODE 1SS253
D8411	360K1048	DIODE 1SS253
D8412	360K1048	DIODE 1SS253
D8430	360K1048	DIODE 1SS253
D8431	360K1048	DIODE 1SS253
D8432	360K1048	DIODE 1SS253
D8433	360K1048	DIODE 1SS253
D850	360K1048	DIODE 1SS253
D8501	360K1048	DIODE 1SS253
D8502	360K1048	DIODE 1SS253
D851	360K1048	DIODE 1SS253
D852	360K1048	DIODE 1SS253
D853	360K1048	DIODE 1SS253

SYMBOL	PARTS NO	DESCRIPTION
D861	360K1048	DIODE 1SS253
D8701	360K1048	DIODE 1SS253
D8800	360K1048	DIODE 1SS253
D891	360K1048	DIODE 1SS253
D892	360K1048	DIODE 1SS253
D893	360K1048	DIODE 1SS253
D894	360K1048	DIODE 1SS253
D9003	360K1048	DIODE 1SS253
D901	360K1048	DIODE 1SS253
D902	360K1048	DIODE 1SS253
D903	360K1048	DIODE 1SS253
D904	360K1048	DIODE 1SS253
D905	360K1048	DIODE 1SS253
D9053	360K1048	DIODE 1SS253
D9054	360K1048	DIODE 1SS253
D9055	360K1048	DIODE 1SS253
D9056	361K7562	DIODE EGP10G G23
D9057	360K1048	DIODE 1SS253
D9058	360K1048	DIODE 1SS253
D9059	360K1048	DIODE 1SS253
D906	360K1048	DIODE 1SS253
D9060	360K1048	DIODE 1SS253
D9061	360K1048	DIODE 1SS253
D9062	360K1048	DIODE 1SS253
D9063	360K1048	DIODE 1SS253
D907	360K1037	DIODE 1SS83
D908	360K1037	DIODE 1SS83
D909	360K1037	DIODE 1SS83
D910	360K1037	DIODE 1SS83
D911	360K1037	DIODE 1SS83
D912	360K1037	DIODE 1SS83
FD1001	36108102	DIODE RD5.6EBX10A
FD1002	36108023	DIODE ARRAY RD5.6EB(1)*5A
FD1003	36108097	DIODE RD5.6EB(1)X6A
FD1004	36108097	DIODE RD5.6EB(1)X6A
FD751	36108065	DIODE ARRAY RD13EB(3)*4A
FD752	36108065	DIODE ARRAY RD13EB(3)*4A
TH601	79T05400	POSISTOR
⚠TH602	79T04915	POSISTOR
TH7201	381K2054	THERMISTOR 3KD-5FT

SYMBOL	PARTS NO	DESCRIPTION
ZD1001	360K3624	DIODE RD3.9ES AB2-T4
ZD1002	360K3655	DIODE RD8.2ESB(2)/ESAB(2)
ZD1004	360K3647	DIODE RD6.8ESB(2)-T4
ZD1006	360K3634	DIODE RD5.1ESB(1)-T4
ZD1007	360K3642	DIODE RD6.2ES AB1-T4
ZD1008	360K3642	DIODE RD6.2ES AB1-T4
ZD1012	360K3640	DIODE RD5.6ESB(3)-T4
ZD1013	360K3638	DIODE RD5.6ESB(1)-T4
ZD1014	360K3640	DIODE RD5.6ESB(3)-T4
ZD1015	360K3640	DIODE RD5.6ESB(3)-T4
ZD1016	360K3640	DIODE RD5.6ESB(3)-T4
ZD1017	360K3640	DIODE RD5.6ESB(3)-T4
⚠ZD2001	360K3694	DIODE RD22ES AB1-T4
⚠ZD2002	360K3634	DIODE RD5.1ESB(1)-T4
⚠ZD2003	360K3634	DIODE RD5.1ESB(1)-T4
ZD201	360K3634	DIODE RD5.1ESB(1)-T4
ZD202	360K3300	DIODE RD2.0EB(1)-T4
ZD203	360K3300	DIODE RD2.0EB(1)-T4
ZD204	360K3300	DIODE RD2.0EB(1)-T4
ZD4501	360K3617	DIODE RD3.3ES AB1-T4
ZD4502	360K3635	DIODE RD5.1ESB(2)-T4
ZD4503	360K3120	DIODE RD24EB(3)-T4
ZD4504	360K3154	DIODE RD12EB(1)-T4
ZD4505	360K3352	DIODE RD43EB-T4
ZD4506	360K3161	DIODE RD12EB(2)-T4
ZD4507	360K3647	DIODE RD6.8ESB(2)-T4
ZD5004	360K3679	DIODE RD15ESB(2)-T4
ZD5005	360K3679	DIODE RD15ESB(2)-T4
ZD5006	360K3679	DIODE RD15ESB(2)-T4
ZD5007	360K3688	DIODE RD18ES AB3-T4
ZD5009	360K3634	DIODE RD5.1ESB(1)-T4
ZD5013	360K3624	DIODE RD3.9ES AB2-T4
ZD5014	360K3624	DIODE RD3.9ES AB2-T4
⚠ZD5015	360K3120	DIODE RD24EB(3)-T4
ZD5016	360K3688	DIODE RD18ES AB3-T4
ZD5017	360K3147	DIODE RD18EB(1)-T4
ZD5301	360K3605	DIODE RD2.2ESB(1)-T4
ZD5302	360K3658	DIODE RD9.1ESB(1)-T4
ZD5401	360K3624	DIODE RD3.9ES AB2-T4
ZD5402	360K3623	DIODE RD3.9ESB(1)-T4

SYMBOL	PARTS NO	DESCRIPTION
ZD5505	360K3671	DIODE RD12ESB(2)/ESAB(2)
ZD5506	360K3120	DIODE RD24EB(3)-T4
ZD631	79T04862	ZENER DIODE RD100EB
ZD632	79T06435	ZENER DIODE RD82EB
⚠ZD634	79T06427	ZENER DIODE RD24ESB
ZD635	79T06434	ZENER DIODE RD8.2ESB
⚠ZD671	79T06433	ZENER DIODE RD6.2ESB
ZD681	79T06426	ZENER DIODE RD22ESB
ZD701	360K3643	DIODE RD6.2ESB(2)-T4
ZD702	360K3659	DIODE RD9.1ESB(2)-T4
ZD7301	360K3635	DIODE RD5.1ESB(2)-T4
ZD7302	360K3635	DIODE RD5.1ESB(2)-T4
ZD801	360K3675	DIODE RD13ESB(2)-T4
ZD802	360K3675	DIODE RD13ESB(2)-T4
ZD803	360K3675	DIODE RD13ESB(2)-T4
ZD805	360K3639	DIODE RD5.6ESB(2)-T4
ZD8101	360K3635	DIODE RD5.1ESB(2)-T4
ZD8102	360K3635	DIODE RD5.1ESB(2)-T4
ZD818	360K3639	DIODE RD5.6ESB(2)-T4
ZD820	360K3639	DIODE RD5.6ESB(2)-T4
ZD8301	360K3647	DIODE RD6.8ESB(2)-T4
ZD8501	360K3679	DIODE RD15ESB(2)-T4
ZD871	360K3675	DIODE RD13ESB(2)-T4
ZD873	360K3639	DIODE RD5.6ESB(2)-T4
ZD874	360K3639	DIODE RD5.6ESB(2)-T4
ZD875	360K3639	DIODE RD5.6ESB(2)-T4
ZD876	360K3675	DIODE RD13ESB(2)-T4
ZD877	360K3675	DIODE RD13ESB(2)-T4
ZD878	360K3675	DIODE RD13ESB(2)-T4
ZD879	360K3680	DIODE RD15ESB(3)-T4
ZD881	360K3675	DIODE RD13ESB(2)-T4
ZD890	360K3100	DIODE RD5.1EB (2)-T4
ZD9001	360K3640	DIODE RD5.6ESB(3)-T4
ZD9002	360K3634	DIODE RD5.1ESB(1)-T4
ZD9003	360K3634	DIODE RD5.1ESB(1)-T4
ZD9008	360K3634	DIODE RD5.1ESB(1)-T4
ZD901	360K3652	DIODE RD7.5ESB(3)-T4
ZD9010	360K3640	DIODE RD5.6ESB(3)-T4
ZD9011	360K3640	DIODE RD5.6ESB(3)-T4
ZD9012	360K3640	DIODE RD5.6ESB(3)-T4

SYMBOL	PARTS NO	DESCRIPTION
ZD9018	360K3624	DIODE RD3.9ES AB2-T4
ZD9019	360K3656	DIODE RD8.2ES AB3-T4
ZD902	360K3652	DIODE RD7.5ESB(3)-T4
ZD9020	360K3658	DIODE RD9.1ESB(1)-T4
ZD9021	360K3623	DIODE RD3.9ESB(1)-T4
ZD9022	360K3116	DIODE RD4.7EB(3)-T4
ZD9023	360K3623	DIODE RD3.9ESB(1)-T4
ZD903	360K3652	DIODE RD7.5ESB(3)-T4

*** TRANSFORMERS ***

⚠T5001	47105411	F.B.T
T5002	46302105	TRANS,FERRITE
T5003	46302105	TRANS,FERRITE
⚠T5004	46399035	H OUT TRANS
T5005	46399036	H DRIVE TRANS
⚠T601	79T06454	TRANS ST681
T602	79T06455	TRANS ST682

*** VARIABLE RESISTORS ***

⚠VR2001	41505205	R,VARIABLE B5.0K
VR301	41071213	R,VARIABLE B10K
VR4001	41505207	R,VARIABLE B20K
VR4002	41505202	R,VARIABLE B500H
VR4003	41505215	R,VARIABLE B30K
VR5301	41505208	R,VARIABLE B50K
VR5302	41071213	R,VARIABLE B10K
VR5401	41505215	R,VARIABLE B30K
VR5503	41071213	R,VARIABLE B10K
VR5504	41071213	R,VARIABLE B10K
VR5505	41505210	R,VARIABLE B200K
⚠VR681	79T06441	R,VARIABLE 500H
VR7101	41071204	R,VARIABLE B330H
VR7201	41071211	R,VARIABLE B4.7K
VR7202	41505203	R,VARIABLE B1K
VR7401	41071213	R,VARIABLE B10K
VR7402	41071211	R,VARIABLE B4.7K
VR7452	41505208	R,VARIABLE B50K
VR8201	41505110	R,VARIABLE B30K

REPLACEMENT PARTS LIST

SYMBOL	PARTS NO	DESCRIPTION
VR8202	41505110	R,VARIABLE B30K
VR8203	41505110	R,VARIABLE B30K
VR8204	41505110	R,VARIABLE B30K
VR8205	41505110	R,VARIABLE B30K
VR8206	41505110	R,VARIABLE B30K
VR8401	41505108	R,VARIABLE B10K
VR8402	41505108	R,VARIABLE B10K
VR8403	41505108	R,VARIABLE B10K
VR8701	41505106	R,VARIABLE B3.0K
VR8702	41505108	R,VARIABLE B10K
VR871	41011136	R,VARIABLE B10K
VR872	41011136	R,VARIABLE B10K
VR873	41011135	R,VARIABLE B20K
VR874	41011135	R,VARIABLE B20K
VR875	41011135	R,VARIABLE B20K
VR9001	41505106	R,VARIABLE B3.0K
VR9002	41505206	R,VARIABLE B10K
VR9003	41505207	R,VARIABLE B20K
VR9004	41505206	R,VARIABLE B10K

*** RELAYS & SWITCHES ***

SYMBOL	PARTS NO	DESCRIPTION
RL5002	65602521	RELAY G6C-1114P
RL5401	65602521	RELAY G6C-1114P
⚠RL5451	65602521	RELAY G6C-1114P
S101	65399043	PUSH SWITCH
S4501	65113508	SWITCH,SLIDE
S701	65199018	SWITCH,SLIDE
S702	65199018	SWITCH,SLIDE
S703	65199018	SWITCH,SLIDE
S704	65199018	SWITCH,SLIDE
S705	65199027	SWITCH,SLIDE
S750	65199018	SWITCH,SLIDE
S8001	65113508	SWITCH,SLIDE
S801	65199018	SWITCH,SLIDE
S802	65199018	SWITCH,SLIDE
S803	65199018	SWITCH,SLIDE
S804	65199018	SWITCH,SLIDE
S805	65199018	SWITCH,SLIDE
S806	65199018	SWITCH,SLIDE

SYMBOL	PARTS NO	DESCRIPTION
S807	65121105	SWITCH,SLIDE
S850	65399033	PUSH SWITCH BUTTON
S851	65399033	PUSH SWITCH BUTTON
S852	65399033	PUSH SWITCH BUTTON
S853	65399033	PUSH SWITCH BUTTON
S854	65399033	PUSH SWITCH BUTTON
S855	65399033	PUSH SWITCH BUTTON
S871	65199018	SWITCH,SLIDE
S872	65121105	SWITCH,SLIDE

*** COILS & FILTERS ***

SYMBOL	PARTS NO	DESCRIPTION
	39603402	FOCUS CONTROL VOLUME
	61605019	CORE,FERRITE
CF7101	61111008	CERAMIC TRAP 4.43MHZ
DL7001	61511048	DELAY LINE 0.3US
DL7101	61511708	DELAY LINE
DL7201	61511619	DELAY LINE
DL7401	61511709	DELAY LINE 1H(PAL)
FB701	616K4004	FERRITE BEADS
FB8401	61605007	FERRITE BEADS 2.5*1.2*0.7
FB8402	61605007	FERRITE BEADS 2.5*1.2*0.7
FB8403	61605007	FERRITE BEADS 2.5*1.2*0.7
FL801	616K6814	NOIZE FILTER
FL802	616K6814	NOIZE FILTER
FL803	616K6823	NOISE FILTER
FL804	616K6823	NOISE FILTER
FL805	616K6823	NOISE FILTER
FL806	616K6823	NOISE FILTER
FL807	616K6814	NOIZE FILTER
FL808	616K6814	NOIZE FILTER
FL809	616K6823	NOISE FILTER
FL810	616K6814	NOIZE FILTER
FL814	616K6814	NOIZE FILTER
FL815	616K6814	NOIZE FILTER
FL8401	616K6823	NOISE FILTER
FL8402	616K6823	NOISE FILTER
FL8403	616K6823	NOISE FILTER
IC7001	61511506	FILTER,NTSC COMB STYLE
L1001	610F7514	COIL,FILTER 5.6UH

SYMBOL	PARTS NO	DESCRIPTION
L1002	610F7514	COIL,FILTER 5.6UH
L5001	61064131	COIL,FILTER 47UH
L5002	46210002	COIL,CHOKE 7.6MH
L5003	61064131	COIL,FILTER 47UH
L5004	46207001	COIL,CHOKE 2MH
L5005	61099118	FILTER COIL
⚠L5401	60917073	COIL,H.LIN
⚠L5402	60917073	COIL,H.LIN
⚠L601	79T06410	COIL ELF18D850M
⚠L602	79T06410	COIL ELF18D850M
⚠L603	79T06399	COIL
⚠L631	79T06414	COIL 10UH
⚠L632	79T06414	COIL 10UH
L633	79T06414	COIL 10UH
L634	79T06415	COIL 4.7UH
L635	79T06402	COIL
L636	79T06402	COIL
L637	79T06402	COIL
L638	79T06402	COIL
L7001	61013015	COIL,FILTER 15UH
L7101	610E1710	COIL,FILTER 2.7UH
L7102	61013009	COIL,FILTER 4.7UH
L7103	61013018	COIL,FILTER 27UH
L7104	610E1719	COIL,FILTER 15UH
L7105	610E1726	COIL,FILTER 56UH
L7106	610E1719	COIL,FILTER 15UH
L7401	610E1716	COIL,FILTER 8.2UH
L7402	610E1724	COIL,FILTER 39UH
L7403	610E1724	COIL,FILTER 39UH
L7404	610E1724	COIL,FILTER 39UH
L901	61013002	COIL,FILTER 1.2UH
L902	61013002	COIL,FILTER 1.2UH
L903	61013002	COIL,FILTER 1.2UH
L904	610E1752	COIL,FILTER 0.68UH
L905	610E1752	COIL,FILTER 0.68UH
L906	610E1752	COIL,FILTER 0.68UH
⚠T5006	60917089	COIL,LIN
⚠T5007	60917089	COIL,LIN
⚠T5401	60917089	COIL,LIN
⚠T5402	60917089	COIL,LIN
T7101	60565023	COIL,D.L MATCHING

SYMBOL	PARTS NO	DESCRIPTION
T7401	60565019	COIL,D.L MATCHING
WI DEG	61329101	COIL,DEGAUSSING

*** PWB ASSYS ***

SYMBOL	PARTS NO	DESCRIPTION
	931R5A02	VID/SW PWB ASSY
	931R5D02	DEF/HV PWB ASSY
	931R5F02	UCOM/V PWB ASSY
	931R5G02	V-CRT PWB ASSY
	931R5M03	DEF SUB PWB ASSY
	931R5S02	VID I/O PWB ASSY
	932C2K01	RGB PWB ASSY
	932C2T01	RGB I/O PWB ASSY

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

SYMBOL	PARTS NO	DESCRIPTION
	31710005	DC FAN
	63010112	SPEAKER 90*55 16H 5W ALN
	68043001	BATTERY,DRY CELL SUM-3
	70032227	SG/CRT SOCKET
	70521060	POWER CONNECTOR 10A
	70810759	LINE CORD UC3S L3.0
	73499229	PLUG CABLE (4M)
	79642822	POWER UNIT(G102-AC120V)
CF7001	39020006	TRAP COIL 3.58MHZ
CF7102	39026228	TRAP COIL 4.4MHZ
D.Y	48007469	DEFLECTION YOKE
FC1001	39016070	C,NETWORK 50V 560PF
FC9001	39016026	C,NETWORK 50V 100PF
FC9002	39016006	C,NETWORK 50V 100PF
FR1001	39030048	R,NETWORK 4*22K 5% 1/8W
FR1002	39030152	R,NETWORK 8*4.7K 5% 1/8W
FR1003	39032001	R,NETWORK 6*47K 5% 1/10W
FR1004	39032001	R,NETWORK 6*47K 5% 1/10W
FR1005	39032002	R,NETWORK 4*22K 5% 1/10W
FR5001	39030098	R,NETWORK 4*4.7K 5% 1/8W
FR5002	39030098	R,NETWORK 4*4.7K 5% 1/8W
FR751	39030040	R,NETWORK 4*100K 5% 1/8W
FR752	39030040	R,NETWORK 4*100K 5% 1/8W
⚠F601	79T06378	FUSE 250V 6.3A
F631	79T06405	FUSE 5A 125V
F632	79T06405	FUSE 5A 125V

SYMBOL	PARTS NO	DESCRIPTION
MG	49005019	MAGNET,CPC
M705	70057006	DIN SOCKET 4P (SW-2)
M706	70057008	DIN SOCKET 4P
M707	70057006	DIN SOCKET 4P (SW-2)
M708	70057008	DIN SOCKET 4P
M709	70056406	D-SUB SOCKET 9P
M710	70056406	D-SUB SOCKET 9P
M711	70505027	HEADPHONE JACK
M712	70505027	HEADPHONE JACK
M750	71199021	TERMINAL 4P,SPEAKER
M751	70051121	PIN JACK 1P
M752	70051121	PIN JACK 1P
M753	70051124	PIN JACK 1P
M754	70051120	PIN JACK 1P
M755	70051121	PIN JACK 1P
M756	70051121	PIN JACK 1P
M757	70051124	PIN JACK 1P
M758	70051120	PIN JACK 1P
M801	70056208	D-SUB SOCKET 15P
M802	70056208	D-SUB SOCKET 15P
M871	70051121	PIN JACK 1P
M872	70051121	PIN JACK 1P
M873	70051124	PIN JACK 1P
M874	70051120	PIN JACK 1P
⚠PC601	79T06420	PHOTO COUPLER PC111LY1
⚠PC602	79T06420	PHOTO COUPLER PC111LY1
REM	79642703	REM-T HAND UNIT RD-335E
RV101	79606107	IC BX-1407 (PHOTO SENS)
⚠RY601	79T06401	RELAY 10A 250V
⚠RY602	79T06401	RELAY 10A 250V
⚠SG5301	66706003	SPARK GAP 2.0KV
SG801	66706001	SPARK GAP 1.2KV
⚠SG901	66706001	SPARK GAP 1.2KV
⚠SG902	66706001	SPARK GAP 1.2KV
⚠SG903	66706001	SPARK GAP 1.2KV
⚠SG904	66706001	SPARK GAP 1.2KV
SK890	70102141	SOCKET,IC 8P
X1001	64099080	X'TAL 8.000MHZ(NDK)
X7401	64003022	X'TAL OSC 3.58MHZ
X7402	64003027	X'TAL 4.43MHZ(NDK)
	24C01411	HOLDER(ANODE LEAD) B
	24F18372	LED HOLDER
	24H14701	SPRING

*** APPEARANCE PARTS ***

SYMBOL	PARTS NO	DESCRIPTION
	24DT3972	CABINET BACK ASSY
	24DT4671	CABINET FRONT ASSY
	24FT5001	CASE(REMOTE)
	24514792	COIL SPRING
	70301534	RUBBER WEDGE
	70301536	FERRITE SHEET
	70301537	FERRITE SHEET(60MM)
	70301538	FERRITE SHEET
	16761791	SERIAL LABEL
	24L29481	SERIAL NUMBER LABEL
	24L30502	LABEL(WARNING)
	24L30512	LABEL(CAUTION)
	24L30712	LABEL(WARNING)(CSA)
BNC1	12400521	HOLDER(BNC)
BNC2	12400521	HOLDER(BNC)
BNC3	12400521	HOLDER(BNC)
BNC4	12400521	HOLDER(BNC)

*** PRINTED & PACKING MATERIALS ***

SYMBOL	PARTS NO	DESCRIPTION
	24MT7651	SPACER T
	24MT8001	CARTON BOX(XM-2950)
	24806961	BAG,POLYETHYLENE(270*370)
	24813191	BAG,POLYETHYLENE(150*370)
	78036581	REGISTRATION CARD MM
	78405881	USER'S MANUAL XM-2950
	24L29491	DHHS CARD(NEC)
	24MT7662	FILLER B,CARTON
	24M02911	BAG,POLYETHYLENE (DHHS)
	24M09081	BAG,PROTECTION

*** RESISTORS ***

SYMBOL	PARTS NO	DESCRIPTION
R1001	401K5661	R,CARBON 330H 5% 1/6W
R1002	401K5661	R,CARBON 330H 5% 1/6W
R1003	401K5661	R,CARBON 330H 5% 1/6W
R1004	401K5661	R,CARBON 330H 5% 1/6W
R1005	401K5697	R,CARBON 10K 5% 1/6W
R1006	401C6661	R,CARBON 330H 5% 1/4W
⚠R1007	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R1008	40175147	R,CARBON 82H 5% 1/4W
R1009	401K5713	R,CARBON 47K 5% 1/6W
R1010	401K5713	R,CARBON 47K 5% 1/6W
R1011	401K5713	R,CARBON 47K 5% 1/6W
R1012	401K5673	R,CARBON 1.0K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R1013	401K5673	R,CARBON 1.0K 5% 1/6W
R1014	401K5673	R,CARBON 1.0K 5% 1/6W
R1015	401K5697	R,CARBON 10K 5% 1/6W
R1016	401K5673	R,CARBON 1.0K 5% 1/6W
R1019	404C1723	R,METAL 120K 1% 1/6W
R1020	401K5689	R,CARBON 4.7K 5% 1/6W
R1021	401K5693	R,CARBON 6.8K 5% 1/6W
R1022	401K5695	R,CARBON 8.2K 5% 1/6W
R1023	401K5681	R,CARBON 2.2K 5% 1/6W
R1024	401K5695	R,CARBON 8.2K 5% 1/6W
R1025	401K5633	R,CARBON 22H 5% 1/6W
R1026	401K5633	R,CARBON 22H 5% 1/6W
R1027	401K5633	R,CARBON 22H 5% 1/6W
R1028	401K5689	R,CARBON 4.7K 5% 1/6W
R1031	401K5713	R,CARBON 47K 5% 1/6W
R1032	401K5693	R,CARBON 6.8K 5% 1/6W
R1033	401K5681	R,CARBON 2.2K 5% 1/6W
R1034	401K5701	R,CARBON 15K 5% 1/6W
R1035	401K5681	R,CARBON 2.2K 5% 1/6W
R1036	401K5673	R,CARBON 1.0K 5% 1/6W
R1037	401K5673	R,CARBON 1.0K 5% 1/6W
R1038	401K5673	R,CARBON 1.0K 5% 1/6W
R1039	401K5673	R,CARBON 1.0K 5% 1/6W
R1040	401K5673	R,CARBON 1.0K 5% 1/6W
R1041	401K5673	R,CARBON 1.0K 5% 1/6W
⚠R1042	401G6173	R,CARBON 1.0K 5% 1/4W
R1043	401K5673	R,CARBON 1.0K 5% 1/6W
R1044	401K5673	R,CARBON 1.0K 5% 1/6W
R1045	401K5673	R,CARBON 1.0K 5% 1/6W
R1046	401K5673	R,CARBON 1.0K 5% 1/6W
R1047	401K5673	R,CARBON 1.0K 5% 1/6W
R1048	401K5673	R,CARBON 1.0K 5% 1/6W
R1049	401K5689	R,CARBON 4.7K 5% 1/6W
R1050	401K5697	R,CARBON 10K 5% 1/6W
R1051	401K5673	R,CARBON 1.0K 5% 1/6W
R1052	401K5673	R,CARBON 1.0K 5% 1/6W
R1053	401K5673	R,CARBON 1.0K 5% 1/6W
R1054	401K5673	R,CARBON 1.0K 5% 1/6W
R1055	401K5673	R,CARBON 1.0K 5% 1/6W
R1056	401K5673	R,CARBON 1.0K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R1057	401K5721	R,CARBON 100K 5% 1/6W
R1058	401K5713	R,CARBON 47K 5% 1/6W
R1059	401K5713	R,CARBON 47K 5% 1/6W
R1060	401K5697	R,CARBON 10K 5% 1/6W
R1061	401K5697	R,CARBON 10K 5% 1/6W
R1062	401C6653	R,CARBON 150H 5% 1/4W
⚠R1063	401G6117	R,CARBON 4.7H 5% 1/4W
R1064	401K5697	R,CARBON 10K 5% 1/6W
R1065	401K5673	R,CARBON 1.0K 5% 1/6W
R1066	401K5689	R,CARBON 4.7K 5% 1/6W
R1067	401K5673	R,CARBON 1.0K 5% 1/6W
R1068	401K5673	R,CARBON 1.0K 5% 1/6W
R1069	401K5673	R,CARBON 1.0K 5% 1/6W
R1070	401K5673	R,CARBON 1.0K 5% 1/6W
R1071	401K5673	R,CARBON 1.0K 5% 1/6W
R1072	401K5697	R,CARBON 10K 5% 1/6W
R1073	401K5705	R,CARBON 22K 5% 1/6W
R1074	401K5713	R,CARBON 47K 5% 1/6W
R1075	401K5673	R,CARBON 1.0K 5% 1/6W
R1076	401K5673	R,CARBON 1.0K 5% 1/6W
R1077	401K5711	R,CARBON 39K 5% 1/6W
R1078	401K5705	R,CARBON 22K 5% 1/6W
R1079	401K5713	R,CARBON 47K 5% 1/6W
R1080	401K5673	R,CARBON 1.0K 5% 1/6W
R1081	401K5673	R,CARBON 1.0K 5% 1/6W
R1082	401K5673	R,CARBON 1.0K 5% 1/6W
R1083	401K5697	R,CARBON 10K 5% 1/6W
R1084	401K5697	R,CARBON 10K 5% 1/6W
R1085	401K5721	R,CARBON 100K 5% 1/6W
⚠R2001	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R2002	404C1697	R,METAL 10K 1% 1/6W
⚠R2003	404C1701	R,METAL 15K 1% 1/6W
⚠R2004	401K5699	R,CARBON 12K 5% 1/6W
⚠R2005	401K5649	R,CARBON 100H 5% 1/6W
⚠R2006	401K5709	R,CARBON 33K 5% 1/6W
R2007	401K5709	R,CARBON 33K 5% 1/6W
⚠R2008	401K5709	R,CARBON 33K 5% 1/6W
⚠R2009	404C1713	R,METAL 47K 1% 1/6W
⚠R201	40372135	R,METAL 27H 5% 2W
⚠R2010	404C1721	R,METAL 100K 1% 1/6W

REPLACEMENT PARTS LIST

SYMBOL	PARTS NO	DESCRIPTION
⚠R2011	404C1697	R,METAL 10K 1% 1/6W
⚠R2012	404C1696	R,METAL 9.1K 1% 1/6W
⚠R2013	401K5697	R,CARBON 10K 5% 1/6W
⚠R2014	401K5697	R,CARBON 10K 5% 1/6W
⚠R2015	401K5721	R,CARBON 100K 5% 1/6W
⚠R2016	404C1677	R,METAL 1.5K 1% 1/6W
⚠R2017	404C1697	R,METAL 10K 1% 1/6W
⚠R2018	401K5683	R,CARBON 2.7K 5% 1/6W
⚠R202	40372135	R,METAL 27H 5% 2W
R203	401K5691	R,CARBON 5.6K 5% 1/6W
⚠R204	40178135	R,CARBON 27H 5%
R205	401K5691	R,CARBON 5.6K 5% 1/6W
⚠R206	40178135	R,CARBON 27H 5%
⚠R207	40371117	R,METAL 4.7H 5% 1W
R208	401K5705	R,CARBON 22K 5% 1/6W
⚠R209	40178135	R,CARBON 27H 5%
R210	401K5691	R,CARBON 5.6K 5% 1/6W
⚠R301	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R302	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R303	40373107	R,METAL 1.8H 5% 3W
R304	401K5683	R,CARBON 2.7K 5% 1/6W
R305	401K5687	R,CARBON 3.9K 5% 1/6W
R306	401K5683	R,CARBON 2.7K 5% 1/6W
R308	401K5697	R,CARBON 10K 5% 1/6W
R310	401K5705	R,CARBON 22K 5% 1/6W
R311	401K5705	R,CARBON 22K 5% 1/6W
⚠R312	401G6141	R,CARBON 47H 5% 1/4W
R314	401K5705	R,CARBON 22K 5% 1/6W
R315	401K5713	R,CARBON 47K 5% 1/6W
R316	401K5713	R,CARBON 47K 5% 1/6W
R317	401K5729	R,CARBON 220K 5% 1/6W
R4001	401K5633	R,CARBON 22H 5% 1/6W
R4003	404C1711	R,METAL 39K 1% 1/6W
R4004	401K5697	R,CARBON 10K 5% 1/6W
R4005	404C1697	R,METAL 10K 1% 1/6W
R4006	401K5691	R,CARBON 5.6K 5% 1/6W
R4007	404C1727	R,METAL 180K 1% 1/6W
R4009	404C1715	R,METAL 56K 1% 1/6W
R4009B	401K5691	R,CARBON 5.6K 5% 1/6W
R4010	404C1703	R,METAL 18K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R4011	401K5697	R,CARBON 10K 5% 1/6W
R4012	401K5697	R,CARBON 10K 5% 1/6W
R4013	404C1695	R,METAL 8.2K 1% 1/6W
R4014	401K5673	R,CARBON 1.0K 5% 1/6W
R4015	404C1711	R,METAL 39K 1% 1/6W
R4016	401K5633	R,CARBON 22H 5% 1/6W
R4017	401K5697	R,CARBON 10K 5% 1/6W
R4018	401K5723	R,CARBON 120K 5% 1/6W
R4019	401K5705	R,CARBON 22K 5% 1/6W
R4021	401K5697	R,CARBON 10K 5% 1/6W
R4022	404C1699	R,METAL 12K 1% 1/6W
R4023	404C1697	R,METAL 10K 1% 1/6W
R4024	404C1697	R,METAL 10K 1% 1/6W
R4025	404C1711	R,METAL 39K 1% 1/6W
R4026	401K5697	R,CARBON 10K 5% 1/6W
R4027	401K5697	R,CARBON 10K 5% 1/6W
R4028	401K5657	R,CARBON 220H 5% 1/6W
R4029	401K5715	R,CARBON 56K 5% 1/6W
R4030	401K5687	R,CARBON 3.9K 5% 1/6W
R4031	401K5687	R,CARBON 3.9K 5% 1/6W
R4032	401K5731	R,CARBON 270K 5% 1/6W
R4033	401K5719	R,CARBON 82K 5% 1/6W
R4034	401K5665	R,CARBON 470H 5% 1/6W
R4035	401K5693	R,CARBON 6.8K 5% 1/6W
R4036	404C1699	R,METAL 12K 1% 1/6W
R4038	401K5719	R,CARBON 82K 5% 1/6W
R4041	401K5687	R,CARBON 3.9K 5% 1/6W
R4042	401K5673	R,CARBON 1.0K 5% 1/6W
R4043	401K5633	R,CARBON 22H 5% 1/6W
R4044	401K5697	R,CARBON 10K 5% 1/6W
R4045	404C1721	R,METAL 100K 1% 1/6W
R4046	404C1721	R,METAL 100K 1% 1/6W
⚠R4501	40373203	R,METAL 18K 5% 3W
R4502	401H5683	R,CARBON 2.7K 5% 1/2W
R4503	401K5697	R,CARBON 10K 5% 1/6W
R4504	401K5697	R,CARBON 10K 5% 1/6W
R4505	401H5707	R,CARBON 27K 5% 1/2W
R4506	401K5677	R,CARBON 1.5K 5% 1/6W
R4507	401H5673	R,CARBON 1.0K 5% 1/2W
⚠R4508	40371101	R,METAL 1.0H 5% 1W

SYMBOL	PARTS NO	DESCRIPTION
⚠R4509	40371101	R,METAL 1.0H 5% 1W
R4510	401K5707	R,CARBON 27K 5% 1/6W
R4512	401K5641	R,CARBON 47H 5% 1/6W
R4513	401K5685	R,CARBON 3.3K 5% 1/6W
⚠R4514	40352161	R,METAL 330H 5% 2W
⚠R4515	40373111	R,METAL 2.7H 5% 3W
R4518	401K5709	R,CARBON 33K 5% 1/6W
R4519	401K5709	R,CARBON 33K 5% 1/6W
R4520	401K5659	R,CARBON 270H 5% 1/6W
R4521	404C1721	R,METAL 100K 1% 1/6W
R4522	404C1706	R,METAL 24K 1% 1/6W
R4523	404C1682	R,METAL 2.4K 1% 1/6W
R4524	404C1718	R,METAL 75K 1% 1/6W
R4525	404C1709	R,METAL 33K 1% 1/6W
R4526	401K5683	R,CARBON 2.7K 5% 1/6W
R4527	401K5683	R,CARBON 2.7K 5% 1/6W
⚠R4528	40373153	R,METAL 150H 5% 3W
⚠R4529	40373153	R,METAL 150H 5% 3W
R4530	401K5649	R,CARBON 100H 5% 1/6W
⚠R4531	40371111	R,METAL 2.7H 5% 1W
⚠R4532	40373139	R,METAL 39H 5% 3W
⚠R4533	40371175	R,METAL 1.2K 5% 1W
⚠R4534	40175101	R,CARBON 1H 5% 1/4W
⚠R4535	40372157	R,METAL 220H 5% 2W
R4536	401C6681	R,CARBON 2.2K 5% 1/4W
R5050	404C1722	R,METAL 110K 1% 1/6W
R5051	404C1713	R,METAL 47K 1% 1/6W
R5052	404C1699	R,METAL 12K 1% 1/6W
R5053	401K5713	R,CARBON 47K 5% 1/6W
⚠R5089	40178103	R,CARBON 1.2H 5% 1/4W
R5090	401G6185	R,CARBON 3.3K 5% 1/4W
R5091	401K5741	R,CARBON 680K 5% 1/6W
R5093	401K5693	R,CARBON 6.8K 5% 1/6W
⚠R5094	401G6127	R,CARBON 12H 5% 1/4W
R5095	401K5641	R,CARBON 47H 5% 1/6W
R5096	401K5693	R,CARBON 6.8K 5% 1/6W
R5097	401K5687	R,CARBON 3.9K 5% 1/6W
R5098	401K5733	R,CARBON 330K 5% 1/6W
⚠R5099	40178173	R,CARBON 1.0K 5% 1/2W
R5100	401C6677	R,CARBON 1.5K 5% 1/4W

SYMBOL	PARTS NO	DESCRIPTION
R5101	401K5695	R,CARBON 8.2K 5% 1/6W
R5102	401K5673	R,CARBON 1.0K 5% 1/6W
⚠R5103	40178137	R,CARBON 33H 5% 1/2W
R5108	401K5693	R,CARBON 6.8K 5% 1/6W
⚠R5109	401G6127	R,CARBON 12H 5% 1/4W
R5111	401K5687	R,CARBON 3.9K 5% 1/6W
R5112	401K5693	R,CARBON 6.8K 5% 1/6W
R5113	401K5633	R,CARBON 22H 5% 1/6W
R5114	404C1718	R,METAL 75K 1% 1/6W
R5115	404C1718	R,METAL 75K 1% 1/6W
R5116	404C1697	R,METAL 10K 1% 1/6W
⚠R5117	401G6109	R,CARBON 2.2H 5% 1/4W
R5118	404C1705	R,METAL 22K 1% 1/6W
R5119	401K5677	R,CARBON 1.5K 5% 1/6W
⚠R5120	401G6141	R,CARBON 47H 5% 1/4W
R5121	404C1703	R,METAL 18K 1% 1/6W
R5122	404C1717	R,METAL 68K 1% 1/6W
⚠R5123	401G6149	R,CARBON 100H 5% 1/4W
⚠R5124	401G6125	R,CARBON 10H 5% 1/4W
⚠R5125	401G6109	R,CARBON 2.2H 5% 1/4W
R5126	401C6651	R,CARBON 120H 5% 1/4W
⚠R5127	40299148	R,WIRE 1.0H 5% 7W
⚠R5128	40299148	R,WIRE 1.0H 5% 7W
R5129	401C6651	R,CARBON 120H 5% 1/4W
⚠R5130	40372333	R,METAL 0.33H 5% 2W
R5131	401K5705	R,CARBON 22K 5% 1/6W
R5132	401K5697	R,CARBON 10K 5% 1/6W
R5133	401K5653	R,CARBON 150H 5% 1/6W
R5134	401K5705	R,CARBON 22K 5% 1/6W
R5135	401K5697	R,CARBON 10K 5% 1/6W
R5136	401K5655	R,CARBON 180H 5% 1/6W
⚠R5137	40371135	R,METAL 27H 5% 1W
⚠R5138	40371135	R,METAL 27H 5% 1W
⚠R5140	40372159	R,METAL 270H 5% 2W
⚠R5141	40372159	R,METAL 270H 5% 2W
R5142	401K5649	R,CARBON 100H 5% 1/6W
R5143	401K5649	R,CARBON 100H 5% 1/6W
R5144	401K5649	R,CARBON 100H 5% 1/6W
R5145	401K5649	R,CARBON 100H 5% 1/6W
R5146	401K5649	R,CARBON 100H 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
⚠R5147	40372141	R,METAL 47H 5% 2W
R5148	401K5697	R,CARBON 10K 5% 1/6W
R5148B	401K5697	R,CARBON 10K 5% 1/6W
R5149	404C1717	R,METAL 68K 1% 1/6W
R5150	404C1717	R,METAL 68K 1% 1/6W
R5151	401H5721	R,CARBON 100K 5% 1/2W
⚠R5152	401G6173	R,CARBON 1.0K 5% 1/4W
R5153	401C6715	R,CARBON 56K 5% 1/4W
R5154	401C6717	R,CARBON 68K 5% 1/4W
R5155	401K5697	R,CARBON 10K 5% 1/6W
R5156	401K5721	R,CARBON 100K 5% 1/6W
R5157	401K5697	R,CARBON 10K 5% 1/6W
R5158	401C6725	R,CARBON 150K 5% 1/4W
R5159	401K5705	R,CARBON 22K 5% 1/6W
R5160	401K5697	R,CARBON 10K 5% 1/6W
R5161	401K5709	R,CARBON 33K 5% 1/6W
R5162	401K5673	R,CARBON 1.0K 5% 1/6W
R5163	401H5745	R,CARBON 1.0M 5% 1/2W
R5164	401H5673	R,CARBON 1.0K 5% 1/2W
R5165	400K3584	R,SOLID 8.2M 10% 1/2W
R5168	401K5709	R,CARBON 33K 5% 1/6W
R5169	401K5697	R,CARBON 10K 5% 1/6W
R5170	401K5697	R,CARBON 10K 5% 1/6W
⚠R5171	401G6109	R,CARBON 2.2H 5% 1/4W
R5172	401K5715	R,CARBON 56K 5% 1/6W
R5174	404C1705	R,METAL 22K 1% 1/6W
R5175	404C1728	R,METAL 200K 1% 1/6W
R5176	404C1735	R,METAL 390K 1% 1/6W
R5177	404C1715	R,METAL 56K 1% 1/6W
R5178	404C1703	R,METAL 18K 1% 1/6W
R5179	401K5697	R,CARBON 10K 5% 1/6W
R5180	401K5697	R,CARBON 10K 5% 1/6W
⚠R5186	40371155	R,METAL 180H 5% 1W
R5187	401K5649	R,CARBON 100H 5% 1/6W
R5188	401K5691	R,CARBON 5.6K 5% 1/6W
R5189	401K5697	R,CARBON 10K 5% 1/6W
R5191	401K5697	R,CARBON 10K 5% 1/6W
R5192	404C1721	R,METAL 100K 1% 1/6W
R5193	401K5709	R,CARBON 33K 5% 1/6W
R5194	404C1697	R,METAL 10K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
⚠R5195	401G6109	R,CARBON 2.2H 5% 1/4W
R5196	404C1707	R,METAL 27K 1% 1/6W
R5197	404C1716	R,METAL 62K 1% 1/6W
⚠R5198	404C1723	R,METAL 120K 1% 1/6W
R5199	401K5741	R,CARBON 680K 5% 1/6W
⚠R5200	401G6125	R,CARBON 10H 5% 1/4W
R5201	404C1693	R,METAL 6.8K 1% 1/6W
R5202	401K5677	R,CARBON 1.5K 5% 1/6W
R5203	401K5681	R,CARBON 2.2K 5% 1/6W
R5204	401K5701	R,CARBON 15K 5% 1/6W
R5206	404C1723	R,METAL 120K 1% 1/6W
⚠R5208	40371103	R,METAL 1.2H 5% 1W
R5211	401K5689	R,CARBON 4.7K 5% 1/6W
R5212	401K5713	R,CARBON 47K 5% 1/6W
R5213	401K5649	R,CARBON 100H 5% 1/6W
⚠R5303	40371221	R,METAL 100K 5% 1W
⚠R5304	40371221	R,METAL 100K 5% 1W
⚠R5305	40371221	R,METAL 100K 5% 1W
⚠R5306	40371221	R,METAL 100K 5% 1W
⚠R5307	40371221	R,METAL 100K 5% 1W
R5308	401K5693	R,CARBON 6.8K 5% 1/6W
R5309	401K5681	R,CARBON 2.2K 5% 1/6W
R5311	401K5693	R,CARBON 6.8K 5% 1/6W
R5312	401K5679	R,CARBON 1.8K 5% 1/6W
R5313	401K5673	R,CARBON 1.0K 5% 1/6W
R5314	401K5709	R,CARBON 33K 5% 1/6W
R5315	401K5713	R,CARBON 47K 5% 1/6W
R5316	401K5715	R,CARBON 56K 5% 1/6W
R5317	401K5697	R,CARBON 10K 5% 1/6W
R5318	401K5697	R,CARBON 10K 5% 1/6W
R5319	401K5729	R,CARBON 220K 5% 1/6W
R5320	401K5695	R,CARBON 8.2K 5% 1/6W
R5321	401K5721	R,CARBON 100K 5% 1/6W
R5322	401K5705	R,CARBON 22K 5% 1/6W
R5323	401K5673	R,CARBON 1.0K 5% 1/6W
R5324	401K5673	R,CARBON 1.0K 5% 1/6W
R5325	401K5715	R,CARBON 56K 5% 1/6W
R5326	401K5737	R,CARBON 470K 5% 1/6W
R5327	401K5715	R,CARBON 56K 5% 1/6W
R5328	401K5721	R,CARBON 100K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
⚠R5331	40178229	R,CARBON 220K 5% 1/2W
⚠R5332	40178229	R,CARBON 220K 5% 1/2W
⚠R5333	40178229	R,CARBON 220K 5% 1/2W
⚠R5334	40178229	R,CARBON 220K 5% 1/2W
⚠R5335	40178229	R,CARBON 220K 5% 1/2W
⚠R5336	40178229	R,CARBON 220K 5% 1/2W
R5337	401K5705	R,CARBON 22K 5% 1/6W
R5338	401K5673	R,CARBON 1.0K 5% 1/6W
R5339	401H5677	R,CARBON 1.5K 5% 1/2W
⚠R5401	40372173	R,METAL 1.0K 5% 2W
⚠R5402	40372159	R,METAL 270H 5% 2W
⚠R5403	40372159	R,METAL 270H 5% 2W
R5404	401K5661	R,CARBON 330H 5% 1/6W
R5405	401K5661	R,CARBON 330H 5% 1/6W
R5406	401K5655	R,CARBON 180H 5% 1/6W
R5407	401K5697	R,CARBON 10K 5% 1/6W
R5408	401K5705	R,CARBON 22K 5% 1/6W
⚠R5409	40371135	R,METAL 27H 5% 1W
⚠R5410	40371135	R,METAL 27H 5% 1W
R5411	404C1707	R,METAL 27K 1% 1/6W
R5412	404C1721	R,METAL 100K 1% 1/6W
R5413	404C1708	R,METAL 30K 1% 1/6W
R5414	404C1721	R,METAL 100K 1% 1/6W
R5415	404C1709	R,METAL 33K 1% 1/6W
R5416	404C1721	R,METAL 100K 1% 1/6W
R5417	404C1709	R,METAL 33K 1% 1/6W
R5418	404C1719	R,METAL 82K 1% 1/6W
R5419	404C1715	R,METAL 56K 1% 1/6W
R5420	401K5697	R,CARBON 10K 5% 1/6W
R5421	401K5697	R,CARBON 10K 5% 1/6W
R5422	404C1705	R,METAL 22K 1% 1/6W
R5423	404C1707	R,METAL 27K 1% 1/6W
R5424	401K5697	R,CARBON 10K 5% 1/6W
R5425	401K5697	R,CARBON 10K 5% 1/6W
R5426	401K5699	R,CARBON 12K 5% 1/6W
R5427	401K5679	R,CARBON 1.8K 5% 1/6W
R5428	401K5693	R,CARBON 6.8K 5% 1/6W
R5429	401K5693	R,CARBON 6.8K 5% 1/6W
R5430	401K5713	R,CARBON 47K 5% 1/6W
R5431	404C1721	R,METAL 100K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R5432	404C1721	R,METAL 100K 1% 1/6W
R5433	404C1714	R,METAL 51K 1% 1/6W
R5434	404C1727	R,METAL 180K 1% 1/6W
R5435	401K5701	R,CARBON 15K 5% 1/6W
R5436	404C1727	R,METAL 180K 1% 1/6W
R5437	404C1707	R,METAL 27K 1% 1/6W
R5438	404C1693	R,METAL 6.8K 1% 1/6W
R5439	401K5707	R,CARBON 27K 5% 1/6W
R5440	404C1718	R,METAL 75K 1% 1/6W
R5441	404C1721	R,METAL 100K 1% 1/6W
R5442	404C1725	R,METAL 150K 1% 1/6W
R5443	404C1708	R,METAL 30K 1% 1/6W
R5444	404C1686	R,METAL 3.6K 1% 1/6W
R5445	401K5681	R,CARBON 2.2K 5% 1/6W
R5446	401K5713	R,CARBON 47K 5% 1/6W
⚠R5447	40372173	R,METAL 1.0K 5% 2W
⚠R5448	401G6157	R,CARBON 220H 5% 1/4W
R5451	401K5709	R,CARBON 33K 5% 1/6W
⚠R5452	401G6125	R,CARBON 10H 5% 1/4W
⚠R5453	401G6125	R,CARBON 10H 5% 1/4W
R5454	401K5649	R,CARBON 100H 5% 1/6W
R5455	401K5649	R,CARBON 100H 5% 1/6W
R5460	401H5697	R,CARBON 10K 5% 1/2W
⚠R5461	40371137	R,METAL 33H 5% 1W
R5501	401K5745	R,CARBON 1.0M 5% 1/6W
R5502	401K5673	R,CARBON 1.0K 5% 1/6W
R5503	404C1715	R,METAL 56K 1% 1/6W
R5504	404C1697	R,METAL 10K 1% 1/6W
R5505	404C1697	R,METAL 10K 1% 1/6W
R5506	404C1705	R,METAL 22K 1% 1/6W
R5507	401K5697	R,CARBON 10K 5% 1/6W
R5508	404C1705	R,METAL 22K 1% 1/6W
R5509	401K5697	R,CARBON 10K 5% 1/6W
R5510	401K5697	R,CARBON 10K 5% 1/6W
R5511	404C1727	R,METAL 180K 1% 1/6W
R5512	404C1721	R,METAL 100K 1% 1/6W
R5513	404C1721	R,METAL 100K 1% 1/6W
R5514	401K5633	R,CARBON 22H 5% 1/6W
R5523	401K5697	R,CARBON 10K 5% 1/6W
R5524	404C1725	R,METAL 150K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R5525	404C1697	R,METAL 10K 1% 1/6W
R5526	404C1697	R,METAL 10K 1% 1/6W
R5527	404C1703	R,METAL 18K 1% 1/6W
R5528	401K5697	R,CARBON 10K 5% 1/6W
R5529	404C1701	R,METAL 15K 1% 1/6W
R5530	401K5697	R,CARBON 10K 5% 1/6W
R5531	401K5697	R,CARBON 10K 5% 1/6W
R5532	404C1685	R,METAL 3.3K 1% 1/6W
R5533	404C1713	R,METAL 47K 1% 1/6W
R5534	404C1723	R,METAL 120K 1% 1/6W
⚠R5535	40372173	R,METAL 1.0K 5% 2W
R5536	401K5689	R,CARBON 4.7K 5% 1/6W
R5537	401K5705	R,CARBON 22K 5% 1/6W
R5538	401K5697	R,CARBON 10K 5% 1/6W
⚠R5539	40175159	R,CARBON 270H 5% 1/4W
R5540	404C1721	R,METAL 100K 1% 1/6W
R5541	404C1713	R,METAL 47K 1% 1/6W
R5542	404C1720	R,METAL 91K 1% 1/6W
R5543	404C1713	R,METAL 47K 1% 1/6W
R5544	404C1713	R,METAL 47K 1% 1/6W
R5545	404C1725	R,METAL 150K 1% 1/6W
R5546	404C1723	R,METAL 120K 1% 1/6W
R5547	401K5697	R,CARBON 10K 5% 1/6W
R5548	401K5697	R,CARBON 10K 5% 1/6W
R5549	404C1701	R,METAL 15K 1% 1/6W
R5550	401K5697	R,CARBON 10K 5% 1/6W
R5551	401K5697	R,CARBON 10K 5% 1/6W
R5552	401K5703	R,CARBON 18K 5% 1/6W
R5553	401K5697	R,CARBON 10K 5% 1/6W
R5554	401K5697	R,CARBON 10K 5% 1/6W
R5555	401K5725	R,CARBON 150K 5% 1/6W
R5556	401K5721	R,CARBON 100K 5% 1/6W
R5557	401K5721	R,CARBON 100K 5% 1/6W
R5558	401K5673	R,CARBON 1.0K 5% 1/6W
R5559	401K5673	R,CARBON 1.0K 5% 1/6W
R5560	401K5717	R,CARBON 68K 5% 1/6W
R5561	401K5717	R,CARBON 68K 5% 1/6W
R5562	404C1711	R,METAL 39K 1% 1/6W
R5563	404C1699	R,METAL 12K 1% 1/6W
R5564	404C1707	R,METAL 27K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R5565	401K5697	R,CARBON 10K 5% 1/6W
R5566	401K5697	R,CARBON 10K 5% 1/6W
R5567	401K5681	R,CARBON 2.2K 5% 1/6W
R5568	401K5721	R,CARBON 100K 5% 1/6W
R5569	401K5713	R,CARBON 47K 5% 1/6W
R5570	401K5697	R,CARBON 10K 5% 1/6W
R5571	404C1715	R,METAL 56K 1% 1/6W
R5572	404C1715	R,METAL 56K 1% 1/6W
R5573	404C1733	R,METAL 330K 1% 1/6W
R5574	404C1710	R,METAL 36K 1% 1/6W
R5575	404C1710	R,METAL [illegible]K 1% 1/6W
R5576	404C1729	R,METAL 220K 1% 1/6W
R5577	404C1721	R,METAL 100K 1% 1/6W
R5579	404C1721	R,METAL 100K 1% 1/6W
R5580	404C1721	R,METAL 100K 1% 1/6W
R5581	404C1721	R,METAL 100K 1% 1/6W
R5582	404C1721	R,METAL 100K 1% 1/6W
R5583	401K5673	R,CARBON 1.0K 5% 1/6W
R5585	401K5685	R,CARBON 3.3K 5% 1/6W
R5587	404C1673	R,METAL 1.0K 1% 1/6W
R5588	404C1715	R,METAL 56K 1% 1/6W
R5589	401K5697	R,CARBON 10K 5% 1/6W
R5590	404C1711	R,METAL 39K 1% 1/6W
R5591	404C1711	R,METAL 39K 1% 1/6W
R5592	404C1723	R,METAL 120K 1% 1/6W
R5593	404C1711	R,METAL 39K 1% 1/6W
R5594	404C1711	R,METAL 39K 1% 1/6W
R5595	401K5633	R,CARBON 22H 5% 1/6W
R5596	401K5633	R,CARBON 22H 5% 1/6W
R5597	401K5673	R,CARBON 1.0K 5% 1/6W
R5598	401K5697	R,CARBON 10K 5% 1/6W
R5599	401K5633	R,CARBON 22H 5% 1/6W
R5600	404C1725	R,METAL 150K 1% 1/6W
R5601	404C1720	R,METAL 91K 1% 1/6W
R5602	404C1721	R,METAL 100K 1% 1/6W
R5603	404C1713	R,METAL 47K 1% 1/6W
R5604	404C1713	R,METAL 47K 1% 1/6W
R5605	404C1705	R,METAL 22K 1% 1/6W
R5606	404C1721	R,METAL 100K 1% 1/6W
R5607	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R5608	401K5633	R,CARBON 22H 5% 1/6W
R5613	401K5633	R,CARBON 22H 5% 1/6W
R5614	401K5685	R,CARBON 3.3K 5% 1/6W
R5615	404C1696	R,METAL 9.1K 1% 1/6W
R5616	401K5699	R,CARBON 12K 5% 1/6W
R5617	401K5699	R,CARBON 12K 5% 1/6W
⚠R601	79T06418	R,CEMENT 4.7H 7W
⚠R602	79T06357	R,CEMENT 4.7H 7W
R603	79T06431	R,CARBON 100KH 1/4W
R604	79T06431	R,CARBON 100KH 1/4W
R606	79T06432	R,CARBON 330KH 1/4W
R607	79T06432	R,CARBON 330KH 1/4W
R609	79T06439	R,METAL 10H 2W
R610	79T06440	R,METAL 82KH 2W
R611	79T06440	R,METAL 82KH 2W
⚠R612	79T06403	RESISTER 0.1H 2W
R613	79T06436	R,CARBON 4.7H 1/4W
R614	79T06253	R,CARBON 33H
R615	79T06253	R,CARBON 33H
R616	79T06253	R,CARBON 33H
R617	79T06253	R,CARBON 33H
R618	79T06448	R,METAL 240H 1/4W
R619	79T06424	R,CARBON 100H 1/4W
⚠R620	79T06437	R,FUSE 15H 1/4W
R621	79T05373	R,METAL 100K 2W
⚠R622	79T06428	R,CARBON 10H 1/4W
R623	79T06258	R,CARBON 330K 1/4W
R624	79T06258	R,CARBON 330K 1/4W
R631	79T06234	R,METAL 22H 1W
R632	79T06234	R,METAL 22H 1W
R633	79T06234	R,METAL 22H 1W
R634	79T06234	R,METAL 22H 1W
R636	79T06453	R,METAL 180KH 1/4W
R637	79T06446	R,METAL 180KH 1/4W
R638	79T06240	R,CARBON 47K 1/4W
R639	79T06266	R,CARBON 8.2K 1/4W
R640	79T06449	R,METAL 3.6KH 1/4W
R642	79T06452	R,METAL 6.2KH 1/4W
R643	79T06450	R,METAL 360H 1/4W
R644	79T06443	R,METAL 1.6KH 1/4W
R645	79T06451	R,METAL 390H 1/4W

SYMBOL	PARTS NO	DESCRIPTION
R647	79T06456	R,CARBON 2.2H 1/4W
R648	79T06277	R,CARBON 4.7K 1/4W
R649	79T06277	R,CARBON 4.7K 1/4W
R650	79T06424	R,CARBON 100H 1/4W
R651	79T06430	R,CARBON 180KH 1/4W
R652	79T06430	R,CARBON 180KH 1/4W
R653	79T06430	R,CARBON 180KH 1/4W
R654	79T06313	R,CARBON 22K 1/4W
R655	79T06257	R,CARBON 10K 1/4W
R656	79T06425	R,CARBON 3.3KH 1/4W
R657	79T06257	R,CARBON 10K 1/4W
R658	79T06277	R,CARBON 4.7K 1/4W
R661	79T06438	R,METAL 27KH 1/4W
R662	79T06447	R,METAL 18KH 1/4W
R663	79T06445	R,METAL 100H 1/4W
R664	79T06267	R,CARBON 33K 1/4W
R665	79T06429	R,CARBON 15KH 1/4W
R666	79T06256	R,CARBON 100K 1/4W
R668	79T06424	R,CARBON 100H 1/4W
R671	79T06316	R,CARBON 470H 1/4W
R672	79T06424	R,CARBON 100H 1/4W
R673	79T06239	R,CARBON 1K 1/4W
R674	79T06319	R,CARBON 330H 1/4W
R681	79T06277	R,CARBON 4.7K 1/4W
R682	79T06316	R,CARBON 470H 1/4W
R683	79T06424	R,CARBON 100H 1/4W
⚠R684	79T06444	R,METAL 1.8KH 1/4W
R685	79T06277	R,CARBON 4.7K 1/4W
R686	79T06316	R,CARBON 470H 1/4W
R687	79T06316	R,CARBON 470H 1/4W
R688	79T06257	R,CARBON 10K 1/4W
R690	79T06257	R,CARBON 10K 1/4W
R691	79T06322	R,CARBON 18K 1/4W
R692	79T06322	R,CARBON 18K 1/4W
R693	79T06239	R,CARBON 1K 1/4W
R694	79T06277	R,CARBON 4.7K 1/4W
R695	79T06277	R,CARBON 4.7K 1/4W
R696	79T06239	R,CARBON 1K 1/4W
R7001	401K5633	R,CARBON 22H 5% 1/6W
⚠R7002	401G6109	R,CARBON 2.2H 5% 1/4W

SYMBOL	PARTS NO	DESCRIPTION
R7003	401K5649	R,CARBON 100H 5% 1/6W
R7004	401K5671	R,CARBON 820H 5% 1/6W
R7005	401K5671	R,CARBON 820H 5% 1/6W
R7007	401K5649	R,CARBON 100H 5% 1/6W
R7009	401K5673	R,CARBON 1.0K 5% 1/6W
R701	404C1646	R,METAL 75H 1% 1/6W
R7010	401K5633	R,CARBON 22H 5% 1/6W
R7011	401K5713	R,CARBON 47K 5% 1/6W
R7012	401K5697	R,CARBON 10K 5% 1/6W
R7013	401K5697	R,CARBON 10K 5% 1/6W
⚠R7014	40371135	R,METAL 27H 5% 1W
R7015	401K5697	R,CARBON 10K 5% 1/6W
R7016	401K5633	R,CARBON 22H 5% 1/6W
R7017	401K5649	R,CARBON 100H 5% 1/6W
R7019	401K5673	R,CARBON 1.0K 5% 1/6W
R702	401K5729	R,CARBON 220K 5% 1/6W
R7020	401K5673	R,CARBON 1.0K 5% 1/6W
R7021	401K5673	R,CARBON 1.0K 5% 1/6W
R7022	401K5633	R,CARBON 22H 5% 1/6W
R7023	401K5697	R,CARBON 10K 5% 1/6W
R7024	401K5697	R,CARBON 10K 5% 1/6W
R703	404C1646	R,METAL 75H 1% 1/6W
R704	401K5729	R,CARBON 220K 5% 1/6W
R705	404C1646	R,METAL 75H 1% 1/6W
R706	404C1646	R,METAL 75H 1% 1/6W
R707	401K5729	R,CARBON 220K 5% 1/6W
R708	401K5729	R,CARBON 220K 5% 1/6W
R709	404C1646	R,METAL 75H 1% 1/6W
R710	404C1646	R,METAL 75H 1% 1/6W
⚠R7101	401G6109	R,CARBON 2.2H 5% 1/4W
R7102	401K5697	R,CARBON 10K 5% 1/6W
R7103	401K5697	R,CARBON 10K 5% 1/6W
R7104	401K5669	R,CARBON 680H 5% 1/6W
R7105	401K5661	R,CARBON 330H 5% 1/6W
R7107	401K5697	R,CARBON 10K 5% 1/6W
R7108	401K5697	R,CARBON 10K 5% 1/6W
R7109	401K5697	R,CARBON 10K 5% 1/6W
R711	401K5729	R,CARBON 220K 5% 1/6W
R7110	401K5697	R,CARBON 10K 5% 1/6W
R7111	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R7112	401K5673	R,CARBON 1.0K 5% 1/6W
R7113	401K5657	R,CARBON 220H 5% 1/6W
R7114	401K5677	R,CARBON 1.5K 5% 1/6W
R7115	401K5669	R,CARBON 680H 5% 1/6W
R7116	401K5669	R,CARBON 680H 5% 1/6W
R7117	401K5663	R,CARBON 390H 5% 1/6W
R7119	401K5663	R,CARBON 390H 5% 1/6W
R712	401K5729	R,CARBON 220K 5% 1/6W
R7121	401K5649	R,CARBON 100H 5% 1/6W
R7123	401K5673	R,CARBON 1.0K 5% 1/6W
R7124	401K5633	R,CARBON 22H 5% 1/6W
R7125	401K5713	R,CARBON 47K 5% 1/6W
R713	401K5649	R,CARBON 100H 5% 1/6W
R714	401K5649	R,CARBON 100H 5% 1/6W
R716	401K5697	R,CARBON 10K 5% 1/6W
⚠R717	40175147	R,CARBON 82H 5% 1/4W
R718	401K5697	R,CARBON 10K 5% 1/6W
R719	401K5649	R,CARBON 100H 5% 1/6W
R720	401K5649	R,CARBON 100H 5% 1/6W
⚠R7201	401G6125	R,CARBON 10H 5% 1/4W
R7202	401K5695	R,CARBON 8.2K 5% 1/6W
R7203	401K5685	R,CARBON 3.3K 5% 1/6W
R7204	401K5673	R,CARBON 1.0K 5% 1/6W
R7205	401K5667	R,CARBON 560H 5% 1/6W
R7206	401K5665	R,CARBON 470H 5% 1/6W
R7207	401K5685	R,CARBON 3.3K 5% 1/6W
R7208	401K5677	R,CARBON 1.5K 5% 1/6W
R7209	401K5659	R,CARBON 270H 5% 1/6W
R721	401K5649	R,CARBON 100H 5% 1/6W
R7210	401K5657	R,CARBON 220H 5% 1/6W
R7211	401K5681	R,CARBON 2.2K 5% 1/6W
R7212	401K5673	R,CARBON 1.0K 5% 1/6W
R7213	401K5657	R,CARBON 220H 5% 1/6W
R7214	401K5671	R,CARBON 820H 5% 1/6W
⚠R7215	401G6117	R,CARBON 4.7H 5% 1/4W
R7216	401K5697	R,CARBON 10K 5% 1/6W
R7217	401K5697	R,CARBON 10K 5% 1/6W
R7218	401K5673	R,CARBON 1.0K 5% 1/6W
R7219	401K5673	R,CARBON 1.0K 5% 1/6W
R722	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R7220	401K5691	R,CARBON 5.6K 5% 1/6W
R7221	401K5681	R,CARBON 2.2K 5% 1/6W
R7222	401K5673	R,CARBON 1.0K 5% 1/6W
R7223	401K5679	R,CARBON 1.8K 5% 1/6W
R7224	401K5673	R,CARBON 1.0K 5% 1/6W
R7225	401K5697	R,CARBON 10K 5% 1/6W
R7226	401K5673	R,CARBON 1.0K 5% 1/6W
R7227	401K5669	R,CARBON 680H 5% 1/6W
R7228	401K5725	R,CARBON 150K 5% 1/6W
R7229	401K5681	R,CARBON 2.2K 5% 1/6W
R723	401K5677	R,CARBON 1.5K 5% 1/6W
R7230	404C1705	R,METAL 22K 1% 1/6W
R7231	404C1689	R.METAL 4.7K 1% 1/6W
R7232	401K5673	R,CARBON 1.0K 5% 1/6W
R7233	401K5663	R,CARBON 390H 5% 1/6W
R7234	401K5667	R,CARBON 560H 5% 1/6W
R7235	401K5663	R,CARBON 390H 5% 1/6W
R7236	401K5657	R,CARBON 220H 5% 1/6W
R7237	401K5669	R,CARBON 680H 5% 1/6W
R7238	401K5673	R,CARBON 1.0K 5% 1/6W
R7239	401K5695	R,CARBON 8.2K 5% 1/6W
R7240	401K5685	R,CARBON 3.3K 5% 1/6W
R7241	404C1681	R,METAL 2.2K 1% 1/6W
R726	401K5649	R,CARBON 100H 5% 1/6W
R727	401K5649	R,CARBON 100H 5% 1/6W
R728	401K5649	R,CARBON 100H 5% 1/6W
R729	401K5697	R,CARBON 10K 5% 1/6W
R7301	401K5673	R,CARBON 1.0K 5% 1/6W
R7302	404C1669	R,METAL 680H 1% 1/6W
R7303	404C1669	R,METAL 680H 1% 1/6W
⚠R7304	401G6173	R,CARBON 1.0K 5% 1/4W
R732	401K5697	R,CARBON 10K 5% 1/6W
R733	401K5693	R,CARBON 6.8K 5% 1/6W
R734	401K5701	R,CARBON 15K 5% 1/6W
R735	401K5705	R,CARBON 22K 5% 1/6W
R736	401K5697	R,CARBON 10K 5% 1/6W
R737	401K5729	R,CARBON 220K 5% 1/6W
⚠R738	401G6101	R,CARBON 1.0H 5% 1/4W
R739	401K5721	R,CARBON 100K 5% 1/6W
R740	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
⚠R7401	401G6109	R,CARBON 2.2H 5% 1/4W
R7402	401K5689	R,CARBON 4.7K 5% 1/6W
R7403	401K5673	R,CARBON 1.0K 5% 1/6W
R7404	401K5649	R,CARBON 100H 5% 1/6W
R7408	401K5669	R,CARBON 680H 5% 1/6W
R7409	401K5663	R,CARBON 390H 5% 1/6W
R741	401K5673	R,CARBON 1.0K 5% 1/6W
R7410	401K5665	R,CARBON 470H 5% 1/6W
R7411	401K5663	R,CARBON 390H 5% 1/6W
R7412	401K5697	R,CARBON 10K 5% 1/6W
R7413	401K5697	R,CARBON 10K 5% 1/6W
R7414	401K5729	R,CARBON 220K 5% 1/6W
R7415	401K5673	R,CARBON 1.0K 5% 1/6W
R7416	401K5685	R,CARBON 3.3K 5% 1/6W
R7417	401K5693	R,CARBON 6.8K 5% 1/6W
R7418	401K5721	R,CARBON 100K 5% 1/6W
R7419	401C6759	R,CARBON 3.9M 5% 1/4W
R742	401K5673	R,CARBON 1.0K 5% 1/6W
R7421	401K5673	R,CARBON 1.0K 5% 1/6W
R7422	401K5673	R,CARBON 1.0K 5% 1/6W
R7423	401K5665	R,CARBON 470H 5% 1/6W
R7424	401K5679	R,CARBON 1.8K 5% 1/6W
R7425	401K5673	R,CARBON 1.0K 5% 1/6W
R7425	40105187	R,CARBON 3.9K 5% 1/6W
R7426	401K5659	R,CARBON 270H 5% 1/6W
R7427	401K5659	R,CARBON 270H 5% 1/6W
R7428	401K5659	R,CARBON 270H 5% 1/6W
⚠R7429	401G6125	R,CARBON 10H 5% 1/4W
R743	401K5697	R,CARBON 10K 5% 1/6W
R7430	401K5673	R,CARBON 1.0K 5% 1/6W
R7431	401K5665	R,CARBON 470H 5% 1/6W
R7432	401K5675	R,CARBON 1.2K 5% 1/6W
R7433	401K5663	R,CARBON 390H 5% 1/6W
R7434	401K5673	R,CARBON 1.0K 5% 1/6W
R7435	401K5673	R,CARBON 1.0K 5% 1/6W
R7436	401K5673	R,CARBON 1.0K 5% 1/6W
R7437	401K5665	R,CARBON 470H 5% 1/6W
R7438	401K5675	R,CARBON 1.2K 5% 1/6W
R7439	401K5663	R,CARBON 390H 5% 1/6W
R744	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R7440	401K5673	R,CARBON 1.0K 5% 1/6W
R7441	401K5673	R,CARBON 1.0K 5% 1/6W
R7442	401K5673	R,CARBON 1.0K 5% 1/6W
R7443	401K5665	R,CARBON 470H 5% 1/6W
R7444	401K5675	R,CARBON 1.2K 5% 1/6W
R7445	401K5663	R,CARBON 390H 5% 1/6W
R7446	401K5673	R,CARBON 1.0K 5% 1/6W
R7447	401K5673	R,CARBON 1.0K 5% 1/6W
R7448	401K5633	R,CARBON 22H 5% 1/6W
R7449	401K5633	R,CARBON 22H 5% 1/6W
R745	401K5689	R,CARBON 4.7K 5% 1/6W
R7450	401K5633	R,CARBON 22H 5% 1/6W
R7451	401K5633	R,CARBON 22H 5% 1/6W
R7453	401K5691	R,CARBON 5.6K 5% 1/6W
R7454	401K5707	R,CARBON 27K 5% 1/6W
R7455	401K5711	R,CARBON 39K 5% 1/6W
⚠R7456	40371135	R,METAL 27H 5% 1W
R746	401K5689	R,CARBON 4.7K 5% 1/6W
R747	401K5649	R,CARBON 100H 5% 1/6W
R748	401K5649	R,CARBON 100H 5% 1/6W
R751	401K5729	R,CARBON 220K 5% 1/6W
R752	401K5673	R,CARBON 1.0K 5% 1/6W
R753	401K5729	R,CARBON 220K 5% 1/6W
R754	401K5673	R,CARBON 1.0K 5% 1/6W
R755	401K5729	R,CARBON 220K 5% 1/6W
R756	401K5673	R,CARBON 1.0K 5% 1/6W
R757	401K5729	R,CARBON 220K 5% 1/6W
R758	401K5673	R,CARBON 1.0K 5% 1/6W
R759	401K5731	R,CARBON 270K 5% 1/6W
R760	401K5731	R,CARBON 270K 5% 1/6W
R761	401K5731	R,CARBON 270K 5% 1/6W
R762	401K5731	R,CARBON 270K 5% 1/6W
R763	401K5681	R,CARBON 2.2K 5% 1/6W
R764	401K5649	R,CARBON 100H 5% 1/6W
R765	401K5681	R,CARBON 2.2K 5% 1/6W
R766	401K5649	R,CARBON 100H 5% 1/6W
R767	401K5697	R,CARBON 10K 5% 1/6W
R768	401K5697	R,CARBON 10K 5% 1/6W
R769	401K5673	R,CARBON 1.0K 5% 1/6W
R770	401K5673	R,CARBON 1.0K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R771	401H5697	R,CARBON 10K 5% 1/2W
R772	401H5697	R,CARBON 10K 5% 1/2W
⚠R773	401G6149	R,CARBON 100H 5% 1/4W
R780	401K5705	R,CARBON 22K 5% 1/6W
R781	401K5697	R,CARBON 10K 5% 1/6W
R8001	401K5697	R,CARBON 10K 5% 1/6W
R8002	401K5689	R,CARBON 4.7K 5% 1/6W
R8003	401K5653	R,CARBON 150H 5% 1/6W
R8004	401K5697	R,CARBON 10K 5% 1/6W
R8005	401K5689	R,CARBON 4.7K 5% 1/6W
R8006	401K5653	R,CARBON 150H 5% 1/6W
R8007	401K5697	R,CARBON 10K 5% 1/6W
R8008	401K5689	R,CARBON 4.7K 5% 1/6W
R8009	401K5653	R,CARBON 150H 5% 1/6W
R801	401K5729	R,CARBON 220K 5% 1/6W
R8010	401K5697	R,CARBON 10K 5% 1/6W
R8011	401K5689	R,CARBON 4.7K 5% 1/6W
R8012	401K5653	R,CARBON 150H 5% 1/6W
R8013	401K5697	R,CARBON 10K 5% 1/6W
R8014	401K5689	R,CARBON 4.7K 5% 1/6W
R8015	401K5653	R,CARBON 150H 5% 1/6W
R8016	401K5697	R,CARBON 10K 5% 1/6W
R8017	401K5689	R,CARBON 4.7K 5% 1/6W
R8018	401K5653	R,CARBON 150H 5% 1/6W
R8019	401K5685	R,CARBON 3.3K 5% 1/6W
R802	401K5729	R,CARBON 220K 5% 1/6W
R8020	401K5697	R,CARBON 10K 5% 1/6W
R8021	401K5653	R,CARBON 150H 5% 1/6W
R8022	401K5685	R,CARBON 3.3K 5% 1/6W
R8023	401K5697	R,CARBON 10K 5% 1/6W
R8024	401K5653	R,CARBON 150H 5% 1/6W
R8025	401K5685	R,CARBON 3.3K 5% 1/6W
R8026	401K5697	R,CARBON 10K 5% 1/6W
R8027	401K5653	R,CARBON 150H 5% 1/6W
R8028	401K5681	R,CARBON 2.2K 5% 1/6W
R8029	401K5673	R,CARBON 1.0K 5% 1/6W
R803	401K5729	R,CARBON 220K 5% 1/6W
R8030	401K5699	R,CARBON 12K 5% 1/6W
R8031	401K5697	R,CARBON 10K 5% 1/6W
R8032	401K5713	R,CARBON 47K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R8033	401K5713	R,CARBON 47K 5% 1/6W
⚠R8034	401G6125	R,CARBON 10H 5% 1/4W
R804	404K2646	R,METAL 75H 1% 1/4W
R805	404K2646	R,METAL 75H 1% 1/4W
R806	404K2646	R,METAL 75H 1% 1/4W
R807	404K2646	R,METAL 75H 1% 1/4W
R808	401K5729	R,CARBON 220K 5% 1/6W
R809	404K2646	R,METAL 75H 1% 1/4W
R810	401K5729	R,CARBON 220K 5% 1/6W
⚠R8101	40178161	R,CARBON 330H 5% 1/2W
R8102	401K5697	R,CARBON 10K 5% 1/6W
R8103	404C1677	R,METAL 1.5K 1% 1/6W
R8104	401K5673	R,CARBON 1.0K 5% 1/6W
R8105	401K5673	R,CARBON 1.0K 5% 1/6W
R8106	401K5697	R,CARBON 10K 5% 1/6W
R8107	401K5691	R,CARBON 5.6K 5% 1/6W
R8108	401K5673	R,CARBON 1.0K 5% 1/6W
R8109	404C1673	R,METAL 1.0K 1% 1/6W
R811	404K2646	R,METAL 75H 1% 1/4W
R8110	404C1699	R,METAL 12K 1% 1/6W
R8111	404C1693	R,METAL 6.8K 1% 1/6W
R8112	404C1665	R,METAL 470H 1% 1/6W
R8113	404C1681	R,METAL 2.2K 1% 1/6W
R8114	401K5697	R,CARBON 10K 5% 1/6W
R812	401K5729	R,CARBON 220K 5% 1/6W
R813	404K2646	R,METAL 75H 1% 1/4W
R814	401K5729	R,CARBON 220K 5% 1/6W
R815	404K2646	R,METAL 75H 1% 1/4W
R816	401K5729	R,CARBON 220K 5% 1/6W
R817	401K5691	R,CARBON 5.6K 5% 1/6W
R818	401K5729	R,CARBON 220K 5% 1/6W
R819	401K5691	R,CARBON 5.6K 5% 1/6W
R820	401K5729	R,CARBON 220K 5% 1/6W
⚠R8201	401G6109	R,CARBON 2.2H 5% 1/4W
R8202	404C1677	R,METAL 1.5K 1% 1/6W
R8203	404C1677	R,METAL 1.5K 1% 1/6W
R8204	404C1677	R,METAL 1.5K 1% 1/6W
R8205	401K5713	R,CARBON 47K 5% 1/6W
R8206	401K5713	R,CARBON 47K 5% 1/6W
R821	401K5685	R,CARBON 3.3K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R822	401K5685	R,CARBON 3.3K 5% 1/6W
R823	401K5685	R,CARBON 3.3K 5% 1/6W
R824	401K5677	R,CARBON 1.5K 5% 1/6W
R825	401K5685	R,CARBON 3.3K 5% 1/6W
R826	401K5685	R,CARBON 3.3K 5% 1/6W
R827	401K5677	R,CARBON 1.5K 5% 1/6W
R828	401K5669	R,CARBON 680H 5% 1/6W
R829	401K5685	R,CARBON 3.3K 5% 1/6W
R830	401K5697	R,CARBON 10K 5% 1/6W
R8301	401C6661	R,CARBON 330H 5% 1/4W
R8302	401C6661	R,CARBON 330H 5% 1/4W
R8303	401C6661	R,CARBON 330H 5% 1/4W
R8304	401K5633	R,CARBON 22H 5% 1/6W
R8305	401K5633	R,CARBON 22H 5% 1/6W
R8306	401K5633	R,CARBON 22H 5% 1/6W
⚠R8307	401G6125	R,CARBON 10H 5% 1/4W
⚠R8308	401G6125	R,CARBON 10H 5% 1/4W
⚠R8309	401G6125	R,CARBON 10H 5% 1/4W
R831	401K5697	R,CARBON 10K 5% 1/6W
R8310	401K5697	R,CARBON 10K 5% 1/6W
R8311	401K5697	R,CARBON 10K 5% 1/6W
R8312	401K5697	R,CARBON 10K 5% 1/6W
R8313	404C1697	R,METAL 10K 1% 1/6W
R8314	404C1697	R,METAL 10K 1% 1/6W
R8315	404C1697	R,METAL 10K 1% 1/6W
R8316	401K5729	R,CARBON 220K 5% 1/6W
R8317	401K5729	R,CARBON 220K 5% 1/6W
R8318	401K5729	R,CARBON 220K 5% 1/6W
R8319	401K5693	R,CARBON 6.8K 5% 1/6W
⚠R832	401G6109	R,CARBON 2.2H 5% 1/4W
R8320	401K5693	R,CARBON 6.8K 5% 1/6W
R8321	401K5693	R,CARBON 6.8K 5% 1/6W
R8322	401K5673	R,CARBON 1.0K 5% 1/6W
R8323	401K5673	R,CARBON 1.0K 5% 1/6W
R8324	401K5673	R,CARBON 1.0K 5% 1/6W
⚠R8325	401G6125	R,CARBON 10H 5% 1/4W
R8326	404C1697	R,METAL 10K 1% 1/6W
R8327	404C1711	R,METAL 39K 1% 1/6W
R8328	404C1697	R,METAL 10K 1% 1/6W
R8329	404C1697	R,METAL 10K 1% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R833	401K5649	R,CARBON 100H 5% 1/6W
R8330	404C1697	R,METAL 10K 1% 1/6W
R8331	404C1673	R,METAL 1.0K 1% 1/6W
R8332	401K5697	R,CARBON 10K 5% 1/6W
R8333	401K5697	R,CARBON 10K 5% 1/6W
R834	401K5649	R,CARBON 100H 5% 1/6W
R835	401K5649	R,CARBON 100H 5% 1/6W
R836	401K5649	R,CARBON 100H 5% 1/6W
R838	401K5649	R,CARBON 100H 5% 1/6W
R839	401K5649	R,CARBON 100H 5% 1/6W
R840	404C1691	R,METAL 5.6K 1% 1/6W
R8401	401C6665	R,CARBON 470H 5% 1/4W
R8402	401C6665	R,CARBON 470H 5% 1/4W
R8403	401C6665	R,CARBON 470H 5% 1/4W
R8404	401K5657	R,CARBON 220H 5% 1/6W
R8405	401K5657	R,CARBON 220H 5% 1/6W
R8406	401K5657	R,CARBON 220H 5% 1/6W
⚠R8407	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R8408	401G6109	R,CARBON 2.2H 5% 1/4W
⚠R8409	401G6109	R,CARBON 2.2H 5% 1/4W
R841	404C1691	R,METAL 5.6K 1% 1/6W
R8410	401K5673	R,CARBON 1.0K 5% 1/6W
R8411	401K5673	R,CARBON 1.0K 5% 1/6W
R8412	401K5673	R,CARBON 1.0K 5% 1/6W
R8413	401C6665	R,CARBON 470H 5% 1/4W
R8414	401C6665	R,CARBON 470H 5% 1/4W
R8415	401C6665	R,CARBON 470H 5% 1/4W
R8416	401K5649	R,CARBON 100H 5% 1/6W
R8417	401K5649	R,CARBON 100H 5% 1/6W
R8418	401K5649	R,CARBON 100H 5% 1/6W
R8419	401H5653	R,CARBON 150H 5% 1/2W
R842	401K5683	R,CARBON 2.7K 5% 1/6W
R8420	401H5653	R,CARBON 150H 5% 1/2W
R8421	401H5653	R,CARBON 150H 5% 1/2W
R8422	401K5657	R,CARBON 220H 5% 1/6W
R8423	401K5657	R,CARBON 220H 5% 1/6W
R8424	401K5657	R,CARBON 220H 5% 1/6W
R8425	401K5665	R,CARBON 470H 5% 1/6W
R8426	401K5665	R,CARBON 470H 5% 1/6W
R8427	401K5665	R,CARBON 470H 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R8428	401C6665	R,CARBON 470H 5% 1/4W
R8429	401C6665	R,CARBON 470H 5% 1/4W
R843	401K5683	R,CARBON 2.7K 5% 1/6W
R8430	401C6665	R,CARBON 470H 5% 1/4W
R8434	401K5689	R,CARBON 4.7K 5% 1/6W
R8435	401K5689	R,CARBON 4.7K 5% 1/6W
R8436	401K5689	R,CARBON 4.7K 5% 1/6W
R8437	404C1663	R,METAL 390H 1% 1/6W
R8438	404C1663	R,METAL 390H 1% 1/6W
R8439	404C1663	R,METAL 390H 1% 1/6W
R844	401K5681	R,CARBON 2.2K 5% 1/6W
R8440	404C1693	R,METAL 6.8K 1% 1/6W
R8441	404C1693	R,METAL 6.8K 1% 1/6W
R8442	404C1693	R,METAL 6.8K 1% 1/6W
R8443	404C1691	R,METAL 5.6K 1% 1/6W
R8444	404C1691	R,METAL 5.6K 1% 1/6W
R8445	404C1691	R,METAL 5.6K 1% 1/6W
R8446	401H5671	R,CARBON 820H 5% 1/2W
R8447	401H5671	R,CARBON 820H 5% 1/2W
R8448	401H5671	R,CARBON 820H 5% 1/2W
R8449	401K5649	R,CARBON 100H 5% 1/6W
R845	401K5685	R,CARBON 3.3K 5% 1/6W
R8450	401K5649	R,CARBON 100H 5% 1/6W
R8451	401K5649	R,CARBON 100H 5% 1/6W
R8452	401K5649	R,CARBON 100H 5% 1/6W
R8453	401K5649	R,CARBON 100H 5% 1/6W
R8454	401K5649	R,CARBON 100H 5% 1/6W
R8455	401K5629	R,CARBON 15H 5% 1/6W
R8456	401K5629	R,CARBON 15H 5% 1/6W
R8457	401K5629	R,CARBON 15H 5% 1/6W
R8458	401K5629	R,CARBON 15H 5% 1/6W
R8459	401K5629	R,CARBON 15H 5% 1/6W
R846	401K5691	R,CARBON 5.6K 5% 1/6W
R8460	401K5629	R,CARBON 15H 5% 1/6W
R8461	401C6633	R,CARBON 22H 5% 1/4W
R8462	401C6633	R,CARBON 22H 5% 1/4W
R8463	401C6633	R,CARBON 22H 5% 1/4W
⚠R8464	401G6125	R,CARBON 10H 5% 1/4W
⚠R8465	401G6125	R,CARBON 10H 5% 1/4W
⚠R8466	401G6125	R,CARBON 10H 5% 1/4W

SYMBOL	PARTS NO	DESCRIPTION
R8467	404C1667	R,METAL 560H 1% 1/6W
R8468	404C1667	R,METAL 560H 1% 1/6W
R8469	404C1667	R,METAL 560H 1% 1/6W
R847	401K5691	R,CARBON 5.6K 5% 1/6W
R848	401K5691	R,CARBON 5.6K 5% 1/6W
R849	401K5701	R,CARBON 15K 5% 1/6W
R850	401K5689	R,CARBON 4.7K 5% 1/6W
R8501	401K5673	R,CARBON 1.0K 5% 1/6W
R8502	401K5689	R,CARBON 4.7K 5% 1/6W
⚠R8503	40178165	R,CARBON 470H 5% 1/2W
R8504	401K5705	R,CARBON 22K 5% 1/6W
R8505	401C6649	R,CARBON 100H 5% 1/4W
R851	401K5721	R,CARBON 100K 5% 1/6W
R852	401K5697	R,CARBON 10K 5% 1/6W
R853	401K5697	R,CARBON 10K 5% 1/6W
⚠R854	401G6125	R,CARBON 10H 5% 1/4W
R855	401K5697	R,CARBON 10K 5% 1/6W
R856	401K5697	R,CARBON 10K 5% 1/6W
R857	401K5667	R,CARBON 560H 5% 1/6W
R858	401K5683	R,CARBON 2.7K 5% 1/6W
R859	401K5681	R,CARBON 2.2K 5% 1/6W
R860	401K5697	R,CARBON 10K 5% 1/6W
R861	401K5679	R,CARBON 1.8K 5% 1/6W
⚠R8701	401G6125	R,CARBON 10H 5% 1/4W
R8702	401K5703	R,CARBON 18K 5% 1/6W
R8703	401K5633	R,CARBON 22H 5% 1/6W
R8706	401K5715	R,CARBON 56K 5% 1/6W
R8707	404C1697	R,METAL 10K 1% 1/6W
R8708	404C1707	R,METAL 27K 1% 1/6W
R8709	404C1697	R,METAL 10K 1% 1/6W
⚠R871	401G6133	R,CARBON 22H 5% 1/4W
R8710	401K5675	R,CARBON 1.2K 5% 1/6W
R8711	401K5687	R,CARBON 3.9K 5% 1/6W
R8712	401K5659	R,CARBON. 270H 5% 1/6W
R8713	401K5661	R,CARBON 330H 5% 1/6W
R8714	401K5715	R,CARBON 56K 5% 1/6W
R8715	404C1699	R,METAL 12K 1% 1/6W
R8716	404C1675	R,METAL 1.2K 1% 1/6W
R8717	401K5695	R,CARBON 8.2K 5% 1/6W
R8718	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R8719	401K5697	R,CARBON 10K 5% 1/6W
R872	404C1681	R,METAL 2.2K 1% 1/6W
R8720	401K5695	R,CARBON 8.2K 5% 1/6W
R8721	404C1691	R,METAL 5.6K 1% 1/6W
R8722	401K5633	R,CARBON 22H 5% 1/6W
R8723	404C1693	R,METAL 6.8K 1% 1/6W
⚠R8724	401G6117	R,CARBON 4.7H 5% 1/4W
R8725	401K5723	R,CARBON 120K 5% 1/6W
R8726	401K5713	R,CARBON 47K 5% 1/6W
R8727	401K5649	R,CARBON 100H 5% 1/6W
R8728	401K5691	R,CARBON 5.6K 5% 1/6W
R8729	401K5713	R,CARBON 47K 5% 1/6W
R873	404C1681	R,METAL 2.2K 1% 1/6W
R8730	401K5691	R,CARBON 5.6K 5% 1/6W
R874	404C1673	R,METAL 1.0K 1% 1/6W
R875	404C1691	R,METAL 5.6K 1% 1/6W
R876	404C1693	R,METAL 6.8K 1% 1/6W
R877	404C1679	R,METAL 1.8K 1% 1/6W
R878	404C1689	R.METAL 4.7K 1% 1/6W
R879	404C1695	R,METAL 8.2K 1% 1/6W
R880	404C1697	R,METAL 10K 1% 1/6W
R8806	404C1697	R,METAL 10K 1% 1/6W
R8807	401K5633	R,CARBON 22H 5% 1/6W
R881	404C1695	R,METAL 8.2K 1% 1/6W
R882	404C1697	R,METAL 10K 1% 1/6W
R883	404C1695	R,METAL 8.2K 1% 1/6W
R884	404C1697	R,METAL 10K 1% 1/6W
R885	401K5729	R,CARBON 220K 5% 1/6W
R886	401K5729	R,CARBON 220K 5% 1/6W
R891	401K5633	R,CARBON 22H 5% 1/6W
R892	401K5633	R,CARBON 22H 5% 1/6W
R893	401K5633	R,CARBON 22H 5% 1/6W
R894	401K5707	R,CARBON 27K 5% 1/6W
R895	401K5713	R,CARBON 47K 5% 1/6W
R896A	401K5649	R,CARBON 100H 5% 1/6W
R897	40178159	R,CARBON 270H 5% 1/2W
R9001	401K5699	R,CARBON 12K 5% 1/6W
R9002	401K5705	R,CARBON 22K 5% 1/6W
R9003	401K5677	R,CARBON 1.5K 5% 1/6W
R9004	401K5701	R,CARBON 15K 5% 1/6W

REPLACEMENT PARTS LIST

SYMBOL	PARTS NO	DESCRIPTION
R9005	401K5697	R,CARBON 10K 5% 1/6W
R9006	401K5707	R,CARBON 27K 5% 1/6W
R9007	401K5709	R,CARBON 33K 5% 1/6W
R9008	401K5697	R,CARBON 10K 5% 1/6W
R9009	401K5689	R,CARBON 4.7K 5% 1/6W
⚠R901	40399085	R,METAL 5.6K 5% 7W
R9010	401K5709	R,CARBON 33K 5% 1/6W
R9011	401K5675	R,CARBON 1.2K 5% 1/6W
R9012	401K5673	R,CARBON 1.0K 5% 1/6W
R9013	401K5703	R,CARBON 18K 5% 1/6W
R9014	401K5693	R,CARBON 6.8K 5% 1/6W
R9015	404C1669	R,METAL 680H 1% 1/6W
R9016	404C1675	R,METAL 1.2K 1% 1/6W
R9016B	404C1681	R,METAL 2.2K 1% 1/6W
R9017	404C1683	R,METAL 2.7K 1% 1/6W
R9018	404C1703	R,METAL 18K 1% 1/6W
R9019	404C1705	R,METAL 22K 1% 1/6W
⚠R902	40399085	R,METAL 5.6K 5% 7W
R9020	404C1661	R,METAL 330H 1% 1/6W
R9020B	404C1661	R,METAL 330H 1% 1/6W
R9021	404C1657	R,METAL 220H 1% 1/6W
R9022	404C1686	R,METAL 3.6K 1% 1/6W
R9023	401K5697	R,CARBON 10K 5% 1/6W
R9024	401K5697	R,CARBON 10K 5% 1/6W
R9025	404C1713	R,METAL 47K 1% 1/6W
R9026	404C1721	R,METAL 100K 1% 1/6W
R9027	404C1714	R,METAL 51K 1% 1/6W
R9028	404C1686	R,METAL 3.6K 1% 1/6W
R9029	404C1719	R,METAL 82K 1% 1/6W
⚠R903	40399085	R,METAL 5.6K 5% 7W
R9030	401K5701	R,CARBON 15K 5% 1/6W
R9031	404C1725	R,METAL 150K 1% 1/6W
R9032	404C1719	R,METAL 82K 1% 1/6W
R9033	404C1719	R,METAL 82K 1% 1/6W
R9034	404C1721	R,METAL 100K 1% 1/6W
R9035	404C1717	R,METAL 68K 1% 1/6W
R9036	404C1703	R,METAL 18K 1% 1/6W
R9037	404C1729	R,METAL 220K 1% 1/6W
R9038	404C1703	R,METAL 18K 1% 1/6W
R9039	401K5673	R,CARBON 1.0K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
⚠R904	40399085	R,METAL 5.6K 5% 7W
R9040	404C1718	R,METAL 75K 1% 1/6W
R9041	401K5697	R,CARBON 10K 5% 1/6W
R9042	401K5693	R,CARBON 6.8K 5% 1/6W
R9043	401K5659	R,CARBON 270H 5% 1/6W
R9044	401K5697	R,CARBON 10K 5% 1/6W
R9045	401K5697	R,CARBON 10K 5% 1/6W
R9046	401K5691	R,CARBON 5.6K 5% 1/6W
R9047	401K5697	R,CARBON 10K 5% 1/6W
⚠R9048	40371163	R,METAL 390H 5% 1W
R9049	401K5633	R,CARBON 22H 5% 1/6W
⚠R905	40399085	R,METAL 5.6K 5% 7W
R9050	401K5707	R,CARBON 27K 5% 1/6W
R9052	401K5661	R,CARBON 330H 5% 1/6W
R9053	401K5689	R,CARBON 4.7K 5% 1/6W
R9054	404C1713	R,METAL 47K 1% 1/6W
R9055	404C1699	R,METAL 12K 1% 1/6W
R9056	404C1719	R,METAL 82K 1% 1/6W
R9057	401K5677	R,CARBON 1.5K 5% 1/6W
R9058	401K5697	R,CARBON 10K 5% 1/6W
R9059	404C1673	R,METAL 1.0K 1% 1/6W
⚠R906	40399085	R,METAL 5.6K 5% 7W
R9060	404C1698	R,METAL 11K 1% 1/6W
R9061	404C1673	R,METAL 1.0K 1% 1/6W
R9062	404C1698	R,METAL 11K 1% 1/6W
R9063	404C1698	R,METAL 11K 1% 1/6W
R9064	404C1673	R,METAL 1.0K 1% 1/6W
R9065	401K5673	R,CARBON 1.0K 5% 1/6W
R9066	401K5633	R,CARBON 22H 5% 1/6W
R9068	401K5633	R,CARBON 22H 5% 1/6W
R9069	401K5633	R,CARBON 22H 5% 1/6W
R907	401C6633	R,CARBON 22H 5% 1/4W
R9070	401K5633	R,CARBON 22H 5% 1/6W
⚠R9071	401G6125	R,CARBON 10H 5% 1/4W
R9072	401K5689	R,CARBON 4.7K 5% 1/6W
R9073	401K5681	R,CARBON 2.2K 5% 1/6W
R9074	401K5681	R,CARBON 2.2K 5% 1/6W
R9075	401K5693	R,CARBON 6.8K 5% 1/6W
R9076	404C1691	R,METAL 5.6K 1% 1/6W
R9077	401K5657	R,CARBON 220H 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R9078	404C1681	R,METAL 2.2K 1% 1/6W
R9079	401K5715	R,CARBON 56K 5% 1/6W
R908	401C6633	R,CARBON 22H 5% 1/4W
R9080	401C6761	R,CARBON 4.7M 5% 1/4W
R9081	401K5677	R,CARBON 1.5K 5% 1/6W
R9082	401K5697	R,CARBON 10K 5% 1/6W
R9083	404C1713	R,METAL 47K 1% 1/6W
R9084	404C1699	R,METAL 12K 1% 1/6W
R9085	404C1719	R,METAL 82K 1% 1/6W
R9086	404C1686	R,METAL 3.6K 1% 1/6W
R9087	404C1733	R,METAL 330K 1% 1/6W
R909	401C6633	R,CARBON 22H 5% 1/4W
R910	401C6633	R,CARBON 22H 5% 1/4W
R911	401C6633	R,CARBON 22H 5% 1/4W
R912	401C6633	R,CARBON 22H 5% 1/4W
R913	401H5661	R,CARBON 330H 5% 1/2W
R914	401H5661	R,CARBON 330H 5% 1/2W
R915	401H5661	R,CARBON 330H 5% 1/2W
R916	401H5665	R,CARBON 470H 5% 1/2W
R917	401H5665	R,CARBON 470H 5% 1/2W
R918	401H5665	R,CARBON 470H 5% 1/2W
R9182	401K5633	R,CARBON 22H 5% 1/6W
R9183	401K5633	R,CARBON 22H 5% 1/6W
R9184	401K5633	R,CARBON 22H 5% 1/6W
⚠R9185	401G6173	R,CARBON 1.0K 5% 1/4W
R919	401K5671	R,CARBON 820H 5% 1/6W
R920	401K5671	R,CARBON 820H 5% 1/6W
R9209	404C1709	R,METAL 33K 1% 1/6W
R921	401K5671	R,CARBON 820H 5% 1/6W
R9210	404C1703	R,METAL 18K 1% 1/6W
R9216	404C1703	R,METAL 18K 1% 1/6W
R9217	404C1719	R,METAL 82K 1% 1/6W
R9218	404C1717	R,METAL 68K 1% 1/6W
R9219	404C1707	R,METAL 27K 1% 1/6W
R922	401K5649	R,CARBON 100H 5% 1/6W
R9220	404C1713	R,METAL 47K 1% 1/6W
R9221	404C1713	R,METAL 47K 1% 1/6W
R9222	404C1711	R,METAL 39K 1% 1/6W
R9223	404C1709	R,METAL 33K 1% 1/6W
R9224	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R9225	401K5697	R,CARBON 10K 5% 1/6W
R9226	401K5745	R,CARBON 1.0M 5% 1/6W
R9227	401K5723	R,CARBON 120K 5% 1/6W
R9229	401K5705	R,CARBON 22K 5% 1/6W
R923	401K5649	R,CARBON 100H 5% 1/6W
R9230	401K5705	R,CARBON 22K 5% 1/6W
R9231	404C1679	R,METAL 1.8K 1% 1/6W
R9232	404C1705	R,METAL 22K 1% 1/6W
R9233	404C1707	R,METAL 27K 1% 1/6W
R9234	404C1695	R,METAL 8.2K 1% 1/6W
R9235	404C1703	R,METAL 18K 1% 1/6W
R9236	401K5721	R,CARBON 100K 5% 1/6W
R9237	401K5745	R,CARBON 1.0M 5% 1/6W
R9238	401K5709	R,CARBON 33K 5% 1/6W
R9239	404C1699	R,METAL 12K 1% 1/6W
R924	401K5649	R,CARBON 100H 5% 1/6W
R9240	404C1726	R,METAL 160K 1% 1/6W
R9241	401K5697	R,CARBON 10K 5% 1/6W
R9242	401K5695	R,CARBON 8.2K 5% 1/6W
R9243	401K5685	R,CARBON 3.3K 5% 1/6W
R9244	404C1715	R,METAL 56K 1% 1/6W
R9245	404C1703	R,METAL 18K 1% 1/6W
R9248	401K5699	R,CARBON 12K 5% 1/6W
R9249	401K5737	R,CARBON 470K 5% 1/6W
R925	401K5649	R,CARBON 100H 5% 1/6W
R9250	404C1697	R,METAL 10K 1% 1/6W
R9250B	404C1693	R,METAL 6.8K 1% 1/6W
R9251	401K5687	R,CARBON 3.9K 5% 1/6W
R926	401K5649	R,CARBON 100H 5% 1/6W
R927	401K5649	R,CARBON 100H 5% 1/6W
R928	401C6665	R,CARBON 470H 5% 1/4W
R929	401C6665	R,CARBON 470H 5% 1/4W
R930	401C6665	R,CARBON 470H 5% 1/4W
⚠R931	40371153	R,METAL 150H 5% 1W
⚠R932	40371153	R,METAL 150H 5% 1W
⚠R933	40371153	R,METAL 150H 5% 1W
R937	401K5647	R,CARBON 82H 5% 1/6W
R938	401K5647	R,CARBON 82H 5% 1/6W
R939	401K5647	R,CARBON 82H 5% 1/6W
R940	401K5697	R,CARBON 10K 5% 1/6W

SYMBOL	PARTS NO	DESCRIPTION
R941	401K5697	R,CARBON 10K 5% 1/6W
R942	401K5697	R,CARBON 10K 5% 1/6W
R943	401K5697	R,CARBON 10K 5% 1/6W
R944	401K5697	R,CARBON 10K 5% 1/6W
R945	401K5697	R,CARBON 10K 5% 1/6W
R946	401H5721	R,CARBON 100K 5% 1/2W
⚠R947	40175141	R,CARBON 47H 5% 1/4W
⚠R948	40371149	R,METAL 100H 5% 1W
⚠R949	40371149	R,METAL 100H 5% 1W
⚠R950	40371149	R,METAL 100H 5% 1W

*** CAPACITORS ***

SYMBOL	PARTS NO	DESCRIPTION
C1001	430B9016	C,ELEC 10V 100UF
C1003	421D6009	C,CERAMIC 25V 0.1UF
C1004	430B9016	C,ELEC 10V 100UF
C1006	430B9062	C,ELEC 50V 2.2UF
C1007	430B9029	C,ELEC 16V 100UF
C1008	421D6009	C,CERAMIC 25V 0.1UF
C1009	423A2033	C,CERAMIC 50V 33PF
C1010	421D6009	C,CERAMIC 25V 0.1UF
C1011	421D6009	C,CERAMIC 25V 0.1UF
C1012	430B9016	C,ELEC 10V 100UF
C1013	421D6009	C,CERAMIC 25V 0.1UF
C1014	430B9016	C,ELEC 10V 100UF
C1015	421D6009	C,CERAMIC 25V 0.1UF
C1016	430B9016	C,ELEC 10V 100UF
C1017	423A2015	C,CERAMIC 50V 10PF
C1018	423A2015	C,CERAMIC 50V 10PF
C1019	421D6009	C,CERAMIC 25V 0.1UF
C1020	430B6007	C,ELEC 6.3V 1000UF
C1021	430B6007	C,ELEC 6.3V 1000UF
C1022	430B6019	C,ELEC 10V 470UF
C1023	430B9016	C,ELEC 10V 100UF
C1024	421D6009	C,CERAMIC 25V 0.1UF
C1025	430B9065	C,ELEC 50V 10UF
C1026	421A0425	C,CERAMIC 50V 0.01UF
C1027	421A0425	C,CERAMIC 50V 0.01UF
C1028	430C8715	C,ELEC 50V 22UF

SYMBOL	PARTS NO	DESCRIPTION
C4011	421D6009	C,CERAMIC 25V 0.1UF
C4012	421D6009	C,CERAMIC 25V 0.1UF
C4013	421D6009	C,CERAMIC 25V 0.1UF
C4015	435A8709	C,TANTALUM 35V 2.2UF
C4016	421D6009	C,CERAMIC 25V 0.1UF
C4017	421D6009	C,CERAMIC 25V 0.1UF
C4018	428B3025	C,METAL FILM 50V 1.0UF
C4021	430B9039	C,ELEC 25V 22UF
C4022	421D6009	C,CERAMIC 25V 0.1UF
C4023	421C0225	C,CERAMIC 50V 0.01UF
C4024	4302F034	C,ELEC 16V 2200UF
C4025	427F4622	C,FILM 50V 0.056UF
C4026	427F4610	C,FILM 50V 5600PF
C4501	4320E402	C,ELEC 200V 10UF
C4502	4302J074	C,ELEC 50V 2200UF
C4503	430B9516	C,ELEC 160V 10UF
C4505	42203341	C,CERAMIC 500V 68PF
C4509	4302J073	C,ELEC 50V 1000UF
C4510	421C0225	C,CERAMIC 50V 0.01UF
C4511	430B9053	C,ELEC 35V 47UF
C4512	430B9039	C,ELEC 25V 22UF
C4513	42840149	C,METAL 250V 2.2UF 5%
C4514	430B6071	C,ELEC 50V 330UF
C5040	433A7013	C,ELEC 16V 47UF
C5041	4303J214	C,ELEC 200V 4.7UF
C5042	427F4621	C,FILM 50V 0.047UF
C5043	427F4621	C,FILM 50V 0.047UF
C5044	430B9066	C,ELEC 50V 22UF
C5045	42899111	C,METAL 200V 1.2UF
C5048	430B9041	C,ELEC 25V 47UF
C5049	421D6009	C,CERAMIC 25V 0.1UF
C5053	4303J214	C,ELEC 200V 4.7UF
C5054	42839022	C,METAL FILM 250V 0.1UF
C5055	430B9066	C,ELEC 50V 22UF
C5056	427F4621	C,FILM 50V 0.047UF
C5057	427F4621	C,FILM 50V 0.047UF
C5058	4320E402	C,ELEC 200V 10UF
C5059	42839673	C,METAL 200V 4.7UF
C5060	430B9062	C,ELEC 50V 2.2UF
C5061	42703451	C,FILM 630V 1000PF

SYMBOL	PARTS NO	DESCRIPTION
C2001	430B9016	C,ELEC 10V 100UF
⚠C2002	430B9068	C,ELEC 50V 47UF
⚠C2003	430B9064	C,ELEC 50V 4.7UF
⚠C2004	430B9041	C,ELEC 25V 47UF
⚠C2005	430B9066	C,ELEC 50V 22UF
C201	421D6013	C,CERAMIC 50V 0.1UF
C202	421D6009	C,CERAMIC 25V 0.1UF
C203	430B9042	C,ELEC 25V 100UF
C204	430B6032	C,ELEC 16V 470UF
C205	430B6032	C,ELEC 16V 470UF
C206	4302J029	C,ELEC 16V 100UF
C207	430B6032	C,ELEC 16V 470UF
C301	430B6032	C,ELEC 16V 470UF
C302	427F4675	C,FILM 50V 0.1UF
C303	430B6032	C,ELEC 16V 470UF
C304	427F4675	C,FILM 50V 0.1UF
C305	4302J112	C,ELEC 35V 4700UF
C306	430B9054	C,ELEC 35V 100UF
C307	430B9053	C,ELEC 35V 47UF
C309	427F4609	C,FILM 50V 4700PF
C311	427F4609	C,FILM 50V 4700PF
C312	430B9053	C,ELEC 35V 47UF
C313	421D6009	C,CERAMIC 25V 0.1UF
C314	4302F034	C,ELEC 16V 2200UF
C315	430B9064	C,ELEC 50V 4.7UF
C316	421D6009	C,CERAMIC 25V 0.1UF
C317	433A7045	C,ELEC 50V 4.7UF
C318	433A7045	C,ELEC 50V 4.7UF
C319	430B9064	C,ELEC 50V 4.7UF
C320	430B9064	C,ELEC 50V 4.7UF
C323	430B9065	C,ELEC 50V 10UF
C4001	427F4601	C,FILM 50V 1000PF
C4002	433A7021	C,ELEC 25V 10UF
C4003	427F4625	C,FILM 50V 0.1UF
C4004	421C0225	C,CERAMIC 50V 0.01UF
C4005	421C0225	C,CERAMIC 50V 0.01UF
C4006	421D6009	C,CERAMIC 25V 0.1UF
C4007	430B9041	C,ELEC 25V 47UF
C4009	430B9041	C,ELEC 25V 47UF
C4010	430B9041	C,ELEC 25V 47UF

SYMBOL	PARTS NO	DESCRIPTION
C5062	430B9532	C,ELEC 200V 1.0UF
C5063	430B9041	C,ELEC 25V 47UF
C5064	430B9068	C,ELEC 50V 47UF
C5065	430B9066	C,ELEC 50V 22UF
C5066	427F4601	C,FILM 50V 1000PF
C5067	4309J102	C,ELEC 35V 100UF
C5068	4203J575	C,CERAMIC 500V 0.01UF
C5073	427F4629	C,FILM 50V 0.22UF
C5074	427F4629	C,FILM 50V 0.22UF
⚠C5075	42839706	C,METAL 400V 0.24UF
⚠C5078	42839633	C,METAL 400V 0.2UF
⚠C5079	42839603	C,METAL FILM 400V 0.15UF
⚠C5080	42839605	C,METAL 400V 0.22UF
⚠C5081	42839608	C,METAL 400V 0.33UF
⚠C5082	42899120	C,METAL 200V 2UF
C5083	421D6009	C,CERAMIC 25V 0.1UF
C5084	421D6009	C,CERAMIC 25V 0.1UF
C5085	421D6009	C,CERAMIC 25V 0.1UF
C5086	421D6009	C,CERAMIC 25V 0.1UF
C5087	421D6009	C,CERAMIC 25V 0.1UF
C5088	421D6009	C,CERAMIC 25V 0.1UF
C5089	430B9041	C,ELEC 25V 47UF
C5090	430B9536	C,ELEC 200V 10UF
C5091	420C9563	C,CERAMIC 500V 1000PF
C5092	42839022	C,METAL FILM 250V 0.1UF
C5093	430B9041	C,ELEC 25V 47UF
C5094	430B9061	C,ELEC 50V 1.0UF
C5095	430B9552	C,ELEC 250V 1.0UF
C5096	4201J575	C,CERAMIC 500V 0.01UF
C5098	421D6009	C,CERAMIC 25V 0.1UF
C5099	430B9552	C,ELEC 250V 1.0UF
⚠C5100	42899130	C,METAL FILM 2KV 0.01UF
C5103	430B9029	C,ELEC 16V 100UF
C5104	421D6009	C,CERAMIC 25V 0.1UF
C5105	430B9039	C,ELEC 25V 22UF
C5106	430B9068	C,ELEC 50V 47UF
C5109	421C0225	C,CERAMIC 50V 0.01UF
⚠C5110	428B3025	C,METAL FILM 50V 1.0UF
C5111	421D6009	C,CERAMIC 25V 0.1UF
C5112	427F8001	C,FILM 50V 1000PF

SYMBOL	PARTS NO	DESCRIPTION
C5113	421C0225	C,CERAMIC 50V 0.01UF
C5114	430B9041	C,ELEC 25V 47UF
C5115	423A2039	C,CERAMIC 50V 56PF
C5117	433A7021	C,ELEC 25V 10UF
C5118	433A7021	C,ELEC 25V 10UF
C5119	430B9066	C,ELEC 50V 22UF
C5120	430B9039	C,ELEC 25V 22UF
C5121	421D6009	C,CERAMIC 25V 0.1UF
⚠C5122	42839632	
⚠C5125	42807505	C,FILM 1.6KV 1500PF
⚠C5126	42807505	C,FILM 1.6KV 1500PF
C5127	433A4026	C,ELEC 16V 100UF
C5302	427F4625	C,FILM 50V 0.1UF
C5303	421D6009	C,CERAMIC 25V 0.1UF
C5304	430B9064	C,ELEC 50V 4.7UF
C5305	430B9041	C,ELEC 25V 47UF
C5306	427F4613	C,FILM 50V 0.01UF
C5307	430B9041	C,ELEC 25V 47UF
C5308	423A2045	C,CERAMIC 50V 100PF
C5309	427F4613	C,FILM 50V 0.01UF
C5310	421D6009	C,CERAMIC 25V 0.1UF
C5311	430B9065	C,ELEC 50V 10UF
C5312	427F4625	C,FILM 50V 0.1UF
C5314	427F4625	C,FILM 50V 0.1UF
C5401	427F4622	C,FILM 50V 0.056UF
C5402	427F4622	C,FILM 50V 0.056UF
C5403	428B3018	C,METAL FILM 50V 0.27UF
C5404	428B3018	C,METAL FILM 50V 0.27UF
C5405	430B9041	C,ELEC 25V 47UF
C5406	430B9061	C,ELEC 50V 1.0UF
C5407	421D6009	C,CERAMIC 25V 0.1UF
C5408	421D6009	C,CERAMIC 25V 0.1UF
C5409	430B9061	C,ELEC 50V 1.0UF
C5410	433A7021	C,ELEC 25V 10UF
C5411	430B9041	C,ELEC 25V 47UF
C5412	430B9041	C,ELEC 25V 47UF
C5413	430B9041	C,ELEC 25V 47UF
C5414	430B9041	C,ELEC 25V 47UF
C5415	421D6009	C,CERAMIC 25V 0.1UF
⚠C5416	421D6009	C,CERAMIC 25V 0.1UF

SYMBOL	PARTS NO	DESCRIPTION
⚠C5451	42807519	C,FILM 1.6KV 5600PF
⚠C5452	42807526	C,FILM 1.6KV 0.011UF
C5453	421D6013	C,CERAMIC 50V 0.1UF
⚠C5454	42817450	C,METAL 2KV 6400PF
⚠C5455	42817450	C,METAL 2KV 6400PF
⚠C5457	42807541	C,FILM 1.6K 0.043UF
C5460	42703569	C,FILM 200V 0.033UF
C5501	433A7046	C,ELEC 50V 10UF
C5502	430B9041	C,ELEC 25V 47UF
C5503	430B9041	C,ELEC 25V 47UF
C5504	421D6009	C,CERAMIC 25V 0.1UF
C5505	421D6009	C,CERAMIC 25V 0.1UF
C5509	421D6009	C,CERAMIC 25V 0.1UF
C5510	433A7021	C,ELEC 25V 10UF
C5511	430B9041	C,ELEC 25V 47UF
C5513	421C0225	C,CERAMIC 50V 0.01UF
C5514	421D6009	C,CERAMIC 25V 0.1UF
C5515	430B9041	C,ELEC 25V 47UF
C5516	430B9041	C,ELEC 25V 47UF
C5517	421D6009	C,CERAMIC 25V 0.1UF
C5518	421D6009	C,CERAMIC 25V 0.1UF
C5519	430B9063	C,ELEC 50V 3.3UF
C5520	421D6009	C,CERAMIC 25V 0.1UF
C5521	421D6009	C,CERAMIC 25V 0.1UF
C5522	430B9063	C,ELEC 50V 3.3UF
C5523	421D6009	C,CERAMIC 25V 0.1UF
C5524	421D6009	C,CERAMIC 25V 0.1UF
C5525	430B9041	C,ELEC 25V 47UF
C5526	430B9041	C,ELEC 25V 47UF
C5527	433A7021	C,ELEC 25V 10UF
C5528	421D6009	C,CERAMIC 25V 0.1UF
C5529	421A0425	C,CERAMIC 50V 0.01UF
C5530	421D6009	C,CERAMIC 25V 0.1UF
C5531	430B9041	C,ELEC 25V 47UF
C5532	421D6009	C,CERAMIC 25V 0.1UF
C5533	421A0425	C,CERAMIC 50V 0.01UF
C5534	421D6009	C,CERAMIC 25V 0.1UF
C5535	421A0425	C,CERAMIC 50V 0.01UF
C5537	430B9041	C,ELEC 25V 47UF
C5538	430B6043	C,ELEC 25V 220UF

SYMBOL	PARTS NO	DESCRIPTION
C5542	421D6009	C,CERAMIC 25V 0.1UF
C5548	427F4625	C,FILM 50V 0.1UF
⚠C601	79T06065	C,FILM 250V 0.47U
⚠C602	79T06065	C,FILM 250V 0.47U
⚠C603	79T06406	C,CERAMIC 3300PF 250V
⚠C604	79T06406	C,CERAMIC 3300PF 250V
⚠C605	79T06406	C,CERAMIC 3300PF 250V
⚠C606	79T06406	C,CERAMIC 3300PF 250V
⚠C607	79T06063	C,CERAMIC 400V 2200P
⚠C608	79T06063	C,CERAMIC 400V 2200P
C609	79T06396	C,CERAMIC 0.82UF 630V
C610	79T06395	C,CERAMIC 0.068UF 630V
C611	79T06408	C,CERAMIC 100PF 2KV
C612	79T06291	C,ELEC 100UF 50V
⚠C613	79T06243	C,ELEC 1200UF 250V
⚠C614	79T06243	C,ELEC 1200UF 250V
C615	79T06394	C,CERAMIC 0.01UF 630V
C631	79T06408	C,CERAMIC 100PF 2KV
C632	79T06408	C,CERAMIC 100PF 2KV
C633	79T06407	C,CERAMIC 100PF 300V
C634	79T04879	C,CERAMIC 220UF 1KV
C638	79T06282	C,ELEC 33UF 250V
C639	79T06380	C,ELEC 10UF 250V
⚠C640	79T06296	C,ELEC 100UF 250V
C641	79T06296	C,ELEC 100UF 250V
C642	79T06282	C,ELEC 33UF 250V
⚠C643	79T06397	C,ELEC 220UF 63V
C644	79T06398	C,ELEC 47UF 63V
C645	79T06289	C,ELEC 470UF 50V
C646	79T06291	C,ELEC 100UF 50V
C647	79T06285	C,ELEC 1000UF 35V
C648	79T06384	C,ELEC 100UF 35V
C649	79T06386	C,ELEC 2200UF 35V
C650	79T06287	C,ELEC 220UF 25V
C651	79T06376	C,ELEC 1000UF 16V
C652	79T06377	C,ELEC 330UF 16V
C653	79T06384	C,ELEC 100UF 35V
C654	79T06302	C,ELEC 47UF 35V
C655	79T06392	C,ELEC 220UF
C656	79T06302	C,ELEC 47UF 35V

SYMBOL	PARTS NO	DESCRIPTION
C657	79T06385	C,ELEC 220UF 35V
C658	79T06302	C,ELEC 47UF 35V
C659	79T06379	C,CERAMIC 0.047UF 250V
C660	79T06383	C,ELEC 47UF 35V
C661	79T06389	C,CERAMIC 470PF
C662	79T06388	C,CERAMIC 0.1UF
C663	79T06387	C,CERAMIC 0.01UF
C665	79T06387	C,CERAMIC 0.01UF
C666	79T06387	C,CERAMIC 0.01UF
C671	79T06390	C,CERAMIC 0.047UF
C672	79T06393	C,ELEC 33UF
C681	79T06390	C,CERAMIC 0.047UF
C682	79T06390	C,CERAMIC 0.047UF
C683	79T06391	C,ELEC 1UF
C685	79T06375	C,ELEC 470UF 10V
C686	79T06387	C,CERAMIC 0.01UF
C7001	430B9029	C,ELEC 16V 100UF
C7002	430B9029	C,ELEC 16V 100UF
C7003	421D6009	C,CERAMIC 25V 0.1UF
C7004	423A2037	C,CERAMIC 50V 47PF
C7005	423A2045	C,CERAMIC 50V 100PF
C7009	430B9029	C,ELEC 16V 100UF
C701	421D6009	C,CERAMIC 25V 0.1UF
C7010	421D6009	C,CERAMIC 25V 0.1UF
C7011	430B9065	C,ELEC 50V 10UF
C7012	430B9065	C,ELEC 50V 10UF
C7013	421D6009	C,CERAMIC 25V 0.1UF
C7014	430B9065	C,ELEC 50V 10UF
C7015	421D6009	C,CERAMIC 25V 0.1UF
C7016	430B9042	C,ELEC 25V 100UF
C7017	421D6009	C,CERAMIC 25V 0.1UF
C7018	430B9029	C,ELEC 16V 100UF
C7019	421D6009	C,CERAMIC 25V 0.1UF
C702	430B8145	C,ELEC 16V 100UF
C7020	430B9029	C,ELEC 16V 100UF
C7021	421D6009	C,CERAMIC 25V 0.1UF
C7022	430B9029	C,ELEC 16V 100UF
C7023	421D6009	C,CERAMIC 25V 0.1UF
C7024	430B9065	C,ELEC 50V 10UF
C7025	430B9029	C,ELEC 16V 100UF

SYMBOL	PARTS NO	DESCRIPTION
C7026	421D6009	C,CERAMIC 25V 0.1UF
C7027	421D6009	C,CERAMIC 25V 0.1UF
C7028	421D6009	C,CERAMIC 25V 0.1UF
C7029	421D6009	C,CERAMIC 25V 0.1UF
C703	430C0047	C,ELEC 16V 47UF
C7030	421D6009	C,CERAMIC 25V 0.1UF
C7031	421D6009	C,CERAMIC 25V 0.1UF
C704	430C0047	C,ELEC 16V 47UF
C705	421D6009	C,CERAMIC 25V 0.1UF
C706	421D6009	C,CERAMIC 25V 0.1UF
C707	430B8145	C,ELEC 16V 100UF
C708	430C0047	C,ELEC 16V 47UF
C709	430C0047	C,ELEC 16V 47UF
C710	421D6009	C,CERAMIC 25V 0.1UF
C7101	430B9041	C,ELEC 25V 47UF
C7102	430B9041	C,ELEC 25V 47UF
C7103	430B9029	C,ELEC 16V 100UF
C7104	421D6009	C,CERAMIC 25V 0.1UF
C7105	430B9041	C,ELEC 25V 47UF
C7106	423A2103	C,CERAMIC 50V 180PF
C7107	423A2033	C,CERAMIC 50V 33PF
C7108	421C0211	C,CERAMIC 50V 680PF
C7109	421C0213	C,CERAMIC 50V 1000PF
C711	421D6009	C,CERAMIC 25V 0.1UF
C7110	423A2029	C,CERAMIC 50V 22PF
C7111	421C0225	C,CERAMIC 50V 0.01UF
C7112	423A2025	C,CERAMIC 50V 15PF
C7113	430B9029	C,ELEC 16V 100UF
C7114	421D6009	C,CERAMIC 25V 0.1UF
C7118	430B9065	C,ELEC 50V 10UF
C712	430B8145	C,ELEC 16V 100UF
C7120	423A2045	C,CERAMIC 50V 100PF
C713	421D6009	C,CERAMIC 25V 0.1UF
C714	421D6009	C,CERAMIC 25V 0.1UF
C715	421D6009	C,CERAMIC 25V 0.1UF
C716	421D6009	C,CERAMIC 25V 0.1UF
C717	430B8145	C,ELEC 16V 100UF
C720	430B8145	C,ELEC 16V 100UF
C7201	430B9041	C,ELEC 25V 47UF
C7202	430B6032	C,ELEC 16V 470UF

SYMBOL	PARTS NO	DESCRIPTION
C7203	421D6009	C,CERAMIC 25V 0.1UF
C7204	433A4025	C,ELEC 16V 47UF
C7205	421D6009	C,CERAMIC 25V 0.1UF
C7206	423A2005	C,CERAMIC 50V 5.0PF
C7207	421D6009	C,CERAMIC 25V 0.1UF
C7208	430B9065	C,ELEC 50V 10UF
C7209	4276D631	C,FILM 50V 0.33UF
C721	421D6009	C,CERAMIC 25V 0.1UF
C7210	430B6032	C,ELEC 16V 470UF
C7211	421D6009	C,CERAMIC 25V 0.1UF
C7212	430B9060	C,ELEC 50V 0.47UF
C7213	430B9063	C,ELEC 50V 3.3UF
C7214	430B9065	C,ELEC 50V 10UF
C7215	430C2152	C,ELEC 50V 0.68UF
C7216	423A2029	C,CERAMIC 50V 22PF
C7217	430B9065	C,ELEC 50V 10UF
C722	430C0047	C,ELEC 16V 47UF
C7301	427F4612	C,FILM 50V 8200PF
C7302	427F4613	C,FILM 50V 0.01UF
C7303	430B9029	C,ELEC 16V 100UF
C7304	421D6009	C,CERAMIC 25V 0.1UF
C7402	423A2104	C,CERAMIC 50V 220PF
C7403	427F4610	C,FILM 50V 5600PF
C7404	423A2104	C,CERAMIC 50V 220PF
C7405	427F4617	C,FILM 50V 0.022UF
C7406	421C0225	C,CERAMIC 50V 0.01UF
C7407	423A2102	C,CERAMIC 50V 150PF
C7409	427F4625	C,FILM 50V 0.1UF
C7410	430B9065	C,ELEC 50V 10UF
C7411	430B9064	C,ELEC 50V 4.7UF
C7412	430B9060	C,ELEC 50V 0.47UF
C7413	430B6033	C,ELEC 16V 1000UF
C7414	421D6009	C,CERAMIC 25V 0.1UF
C7415	433A7045	C,ELEC 50V 4.7UF
C7416	427F4612	C,FILM 50V 8200PF
C7417	430B9222	C,ELEC 50V 0.22UF
C7418	423A2033	C,CERAMIC 50V 33PF
C7419	423A2033	C,CERAMIC 50V 33PF
C7420	423A2037	C,CERAMIC 50V 47PF
C7421	423A1057	C,CERAMIC 50V 330PF

SYMBOL	PARTS NO	DESCRIPTION
C7422	423A1057	C,CERAMIC 50V 330PF
C7423	423A1057	C,CERAMIC 50V 330PF
C7424	430B9029	C,ELEC 16V 100UF
C7425	421D6009	C,CERAMIC 25V 0.1UF
C7426	421D6009	C,CERAMIC 25V 0.1UF
C7427	421D6009	C,CERAMIC 25V 0.1UF
C7428	421D6009	C,CERAMIC 25V 0.1UF
C7429	430B9042	C,ELEC 25V 100UF
C7430	421D6009	C,CERAMIC 25V 0.1UF
C7431	430B6032	C,ELEC 16V 470UF
C7432	421D6009	C,CERAMIC 25V 0.1UF
C751	430C0077	C,ELEC 50V 1.0UF
C752	430C0077	C,ELEC 50V 1.0UF
C753	430C0077	C,ELEC 50V 1.0UF
C754	430C0077	C,ELEC 50V 1.0UF
C755	430C0043	C,ELEC 16V 10UF
C756	430C0043	C,ELEC 16V 10UF
C757	430B8145	C,ELEC 16V 100UF
C758	421D6009	C,CERAMIC 25V 0.1UF
C759	430C0077	C,ELEC 50V 1.0UF
C760	430C0077	C,ELEC 50V 1.0UF
C8001	421A0425	C,CERAMIC 50V 0.01UF
C8002	433A4026	C,ELEC 16V 100UF
C8003	421A0425	C,CERAMIC 50V 0.01UF
C8004	421A0425	C,CERAMIC 50V 0.01UF
C8005	433A4026	C,ELEC 16V 100UF
C8006	421A0425	C,CERAMIC 50V 0.01UF
C8007	421A0425	C,CERAMIC 50V 0.01UF
C8008	433A4026	C,ELEC 16V 100UF
C8009	421A0425	C,CERAMIC 50V 0.01UF
C801	421D6009	C,CERAMIC 25V 0.1UF
C8010	430B9041	C,ELEC 25V 47UF
C8011	421D6009	C,CERAMIC 25V 0.1UF
C8012	421A0425	C,CERAMIC 50V 0.01UF
C8013	433A4026	C,ELEC 16V 100UF
C8014	421A0425	C,CERAMIC 50V 0.01UF
C8015	430B6032	C,ELEC 16V 470UF
C8016	421A0425	C,CERAMIC 50V 0.01UF
C8017	433A4026	C,ELEC 16V 100UF
C8018	421A0425	C,CERAMIC 50V 0.01UF

SYMBOL	PARTS NO	DESCRIPTION
C8019	421A0425	C,CERAMIC 50V 0.01UF
C802	433A6079	C,ELEC 50V 2.2UF
C8020	433A4026	C,ELEC 16V 100UF
C8021	421A0425	C,CERAMIC 50V 0.01UF
C8022	430B9041	C,ELEC 25V 47UF
C8023	421D6009	C,CERAMIC 25V 0.1UF
C8024	421A0425	C,CERAMIC 50V 0.01UF
C8025	433A4026	C,ELEC 16V 100UF
C8026	421A0425	C,CERAMIC 50V 0.01UF
C8027	421A0425	C,CERAMIC 50V 0.01UF
C8028	433A4026	C,ELEC 16V 100UF
C8029	421A0425	C,CERAMIC 50V 0.01UF
C803	421D6009	C,CERAMIC 25V 0.1UF
C8030	421A0425	C,CERAMIC 50V 0.01UF
C8031	433A4026	C,ELEC 16V 100UF
C8032	421A0425	C,CERAMIC 50V 0.01UF
C8033	430B9041	C,ELEC 25V 47UF
C8034	421D6009	C,CERAMIC 25V 0.1UF
C8035	430B9029	C,ELEC 16V 100UF
C804	433A6079	C,ELEC 50V 2.2UF
C805	430B6064	C,ELEC 50V 4.7UF
C806	430B8145	C,ELEC 16V 100UF
C807	421D6009	C,CERAMIC 25V 0.1UF
C808	430B8145	C,ELEC 16V 100UF
C809	423A1057	C,CERAMIC 50V 330PF
C810	430B8145	C,ELEC 16V 100UF
C8101	430B9029	C,ELEC 16V 100UF
C8102	421A0425	C,CERAMIC 50V 0.01UF
C8103	427F8001	C,FILM 50V 1000PF
C8104	427F8001	C,FILM 50V 1000PF
C8105	430B6030	C,ELEC 16V 220UF
C8106	430B9061	C,ELEC 50V 1.0UF
C8107	421A0425	C,CERAMIC 50V 0.01UF
C811	421D6009	C,CERAMIC 25V 0.1UF
C812	423A1057	C,CERAMIC 50V 330PF
C813	423A1057	C,CERAMIC 50V 330PF
C814	423A1057	C,CERAMIC 50V 330PF
C815	430B6064	C,ELEC 50V 4.7UF
C816	430C0043	C,ELEC 16V 10UF
C817	433A6081	C,ELEC 50V 4.7UF

SYMBOL	PARTS NO	DESCRIPTION
C818	427F4625	C,FILM 50V 0.1UF
C819	430B6064	C,ELEC 50V 4.7UF
C820	433A6079	C,ELEC 50V 2.2UF
C8201	430B9029	C,ELEC 16V 100UF
C8202	421D6009	C,CERAMIC 25V 0.1UF
C821	427F4609	C,FILM 50V 4700PF
C822	430B8145	C,ELEC 16V 100UF
C823	421D6009	C,CERAMIC 25V 0.1UF
C825	430C0043	C,ELEC 16V 10UF
C826	421D6009	C,CERAMIC 25V 0.1UF
C8301	421A0425	C,CERAMIC 50V 0.01UF
C8302	421A0425	C,CERAMIC 50V 0.01UF
C8303	421A0425	C,CERAMIC 50V 0.01UF
C8304	433A4026	C,ELEC 16V 100UF
C8305	433A4026	C,ELEC 16V 100UF
C8306	433A4026	C,ELEC 16V 100UF
C8307	423A2015	C,CERAMIC 50V 10PF
C8308	423A2015	C,CERAMIC 50V 10PF
C8309	423A2015	C,CERAMIC 50V 10PF
C831	42034151	C,CERAMIC 2KV 4700UF
C8310	421A0425	C,CERAMIC 50V 0.01UF
C8311	421A0425	C,CERAMIC 50V 0.01UF
C8312	421A0425	C,CERAMIC 50V 0.01UF
C8313	430B6032	C,ELEC 16V 470UF
C8314	430B6032	C,ELEC 16V 470UF
C8315	430B6032	C,ELEC 16V 470UF
C8316	421C0225	C,CERAMIC 50V 0.01UF
C8317	421C0225	C,CERAMIC 50V 0.01UF
C8318	421C0225	C,CERAMIC 50V 0.01UF
C8319	423A2029	C,CERAMIC 50V 22PF
C8320	423A2029	C,CERAMIC 50V 22PF
C8321	423A2029	C,CERAMIC 50V 22PF
C8322	430B9062	C,ELEC 50V 2.2UF
C8323	430B9062	C,ELEC 50V 2.2UF
C8324	430B9062	C,ELEC 50V 2.2UF
C8325	430B9061	C,ELEC 50V 1.0UF
C8326	430B9061	C,ELEC 50V 1.0UF
C8327	430B9061	C,ELEC 50V 1.0UF
C8328	430B9029	C,ELEC 16V 100UF
C8329	421A0425	C,CERAMIC 50V 0.01UF

SYMBOL	PARTS NO	DESCRIPTION
C8330	430B9062	C,ELEC 50V 2.2UF
C8331	421C0225	C,CERAMIC 50V 0.01UF
C8332	430B9061	C,ELEC 50V 1.0UF
C8333	430B9068	C,ELEC 50V 47UF
C8404	421A0425	C,CERAMIC 50V 0.01UF
C8405	421A0425	C,CERAMIC 50V 0.01UF
C8406	421A0425	C,CERAMIC 50V 0.01UF
C8407	430B9029	C,ELEC 16V 100UF
C8408	430B9029	C,ELEC 16V 100UF
C8409	430B9029	C,ELEC 16V 100UF
C8410	423A2025	C,CERAMIC 50V 15PF
C8411	423A2025	C,CERAMIC 50V 15PF
C8412	423A2025	C,CERAMIC 50V 15PF
C8413	430B9065	C,ELEC 50V 10UF
C8414	430B9065	C,ELEC 50V 10UF
C8415	430B9065	C,ELEC 50V 10UF
C8416	420B9513	C,CERAMIC 50V 1000PF
C8417	420B9513	C,CERAMIC 50V 1000PF
C8418	420B9513	C,CERAMIC 50V 1000PF
C8419	421D6009	C,CERAMIC 25V 0.1UF
C8420	421D6009	C,CERAMIC 25V 0.1UF
C8421	421D6009	C,CERAMIC 25V 0.1UF
C8422	423A2045	C,CERAMIC 50V 100PF
C8423	423A2045	C,CERAMIC 50V 100PF
C8424	423A2045	C,CERAMIC 50V 100PF
C8425	421A0425	C,CERAMIC 50V 0.01UF
C8426	421A0425	C,CERAMIC 50V 0.01UF
C8427	421A0425	C,CERAMIC 50V 0.01UF
C8428	430B6054	C,ELEC 35V 100UF
C8429	430B6054	C,ELEC 35V 100UF
C8430	430B6054	C,ELEC 35V 100UF
C8431	430B9040	C,ELEC 25V 33UF
C8501	430B6045	C,ELEC 25V 470UF
C8502	421D6009	C,CERAMIC 25V 0.1UF
C8601	430B6032	C,ELEC 16V 470UF
C8602	421D6009	C,CERAMIC 25V 0.1UF
C8603	421D6009	C,CERAMIC 25V 0.1UF
C8604	430B9042	C,ELEC 25V 100UF
C8605	430B6054	C,ELEC 35V 100UF
C8606	430B6057	C,ELEC 35V 470UF

SYMBOL	PARTS NO	DESCRIPTION
C8607	421D6013	C,CERAMIC 50V 0.1UF
C8701	430B6032	C,ELEC 16V 470UF
C8702	421D6009	C,CERAMIC 25V 0.1UF
C8703	427F4621	C,FILM 50V 0.047UF
C8704	421D6009	C,CERAMIC 25V 0.1UF
C8705	421C0225	C,CERAMIC 50V 0.01UF
C8706	428B3025	C,METAL FILM 50V 1.0UF
C8707	427F4621	C,FILM 50V 0.047UF
C8708	428B3025	C,METAL FILM 50V 1.0UF
C8709	427F4619	C,FILM 50V 0.033UF
C871	421D6009	C,CERAMIC 25V 0.1UF
C8710	433A7042	C,ELEC 50V 1.0UF
C8711	433A7042	C,ELEC 50V 1.0UF
C8712	427F4601	C,FILM 50V 1000PF
C8713	423A1104	C,CERAMIC 50V 680PF
C8714	427F4609	C,FILM 50V 4700PF
C8715	427F8069	C,FILM 50V 5600PF
C8716	430B9062	C,ELEC 50V 2.2UF
C8717	427F4621	C,FILM 50V 0.047UF
C8718	427F4613	C,FILM 50V 0.01UF
C8719	423A1101	C,CERAMIC 50V 470PF
C872	430B8145	C,ELEC 16V 100UF
C8720	421D6009	C,CERAMIC 25V 0.1UF
C8721	430B9029	C,ELEC 16V 100UF
C8722	427F8001	C,FILM 50V 1000PF
C8723	421D6009	C,CERAMIC 25V 0.1UF
C8724	430B9029	C,ELEC 16V 100UF
C8726	427F4656	C,FILM 50V 2700PF
C8727	428B3025	C,METAL FILM 50V 1.0UF
C873	421D6009	C,CERAMIC 25V 0.1UF
C8803	427F8001	C,FILM 50V 1000PF
C8804	421D6009	C,CERAMIC 25V 0.1UF
C890	421D6009	C,CERAMIC 25V 0.1UF
C9001	423A2045	C,CERAMIC 50V 100PF
C9002	423A2103	C,CERAMIC 50V 180PF
C9003	423A2105	C,CERAMIC 50V 270PF
C9004	427F8059	C,FILM 50V 2200PF
C9005	435A8651	C,TANTALUM 25V 1.0UF
C9006	421A0425	C,CERAMIC 50V 0.01UF
C9007	430B9061	C,ELEC 50V 1.0UF

SYMBOL	PARTS NO	DESCRIPTION
C9008	427F4614	C,FILM 50V 0.012UF
C9009	421D6009	C,CERAMIC 25V 0.1UF
C901	421C0213	C,CERAMIC 50V 1000PF
C9010	430B6032	C,ELEC 16V 470UF
C9011	421D6009	C,CERAMIC 25V 0.1UF
C9012	430B6045	C,ELEC 25V 470UF
C9013	427F8059	C,FILM 50V 2200PF
C9014	421A0425	C,CERAMIC 50V 0.01UF
C9015	430B9061	C,ELEC 50V 1.0UF
C9016	423A2103	C,CERAMIC 50V 180PF
C9017	427F4601	C,FILM 50V 1000PF
C9018	423A2033	C,CERAMIC 50V 33PF
C9019	430B6030	C,ELEC 16V 220UF
C902	421C0213	C,CERAMIC 50V 1000PF
C9020	421D6009	C,CERAMIC 25V 0.1UF
C9021	430B6030	C,ELEC 16V 220UF
C9022	421D6009	C,CERAMIC 25V 0.1UF
C9023	421D6009	C,CERAMIC 25V 0.1UF
C9024	430B9041	C,ELEC 25V 47UF
C9025	421D6009	C,CERAMIC 25V 0.1UF
C9026	421D6009	C,CERAMIC 25V 0.1UF
C9027	430B9041	C,ELEC 25V 47UF
C9028	430B9041	C,ELEC 25V 47UF
C9029	421D6009	C,CERAMIC 25V 0.1UF
C903	421C0213	C,CERAMIC 50V 1000PF
C9030	430B9041	C,ELEC 25V 47UF
C9031	421D6009	C,CERAMIC 25V 0.1UF
C9032	430B9041	C,ELEC 25V 47UF
C9033	421D6009	C,CERAMIC 25V 0.1UF
C9034	430B6043	C,ELEC 25V 220UF
C9035	430B6057	C,ELEC 35V 470UF
C9036	430B6030	C,ELEC 16V 220UF
C9037	421D6009	C,CERAMIC 25V 0.1UF
C9038	430B9064	C,ELEC 50V 4.7UF
C9039	421D6009	C,CERAMIC 25V 0.1UF
C904	4201J575	C,CERAMIC 500V 0.01UF
C905	4201J575	C,CERAMIC 500V 0.01UF
C906	4201J575	C,CERAMIC 500V 0.01UF
C907	421D6009	C,CERAMIC 25V 0.1UF
C908	421D6009	C,CERAMIC 25V 0.1UF

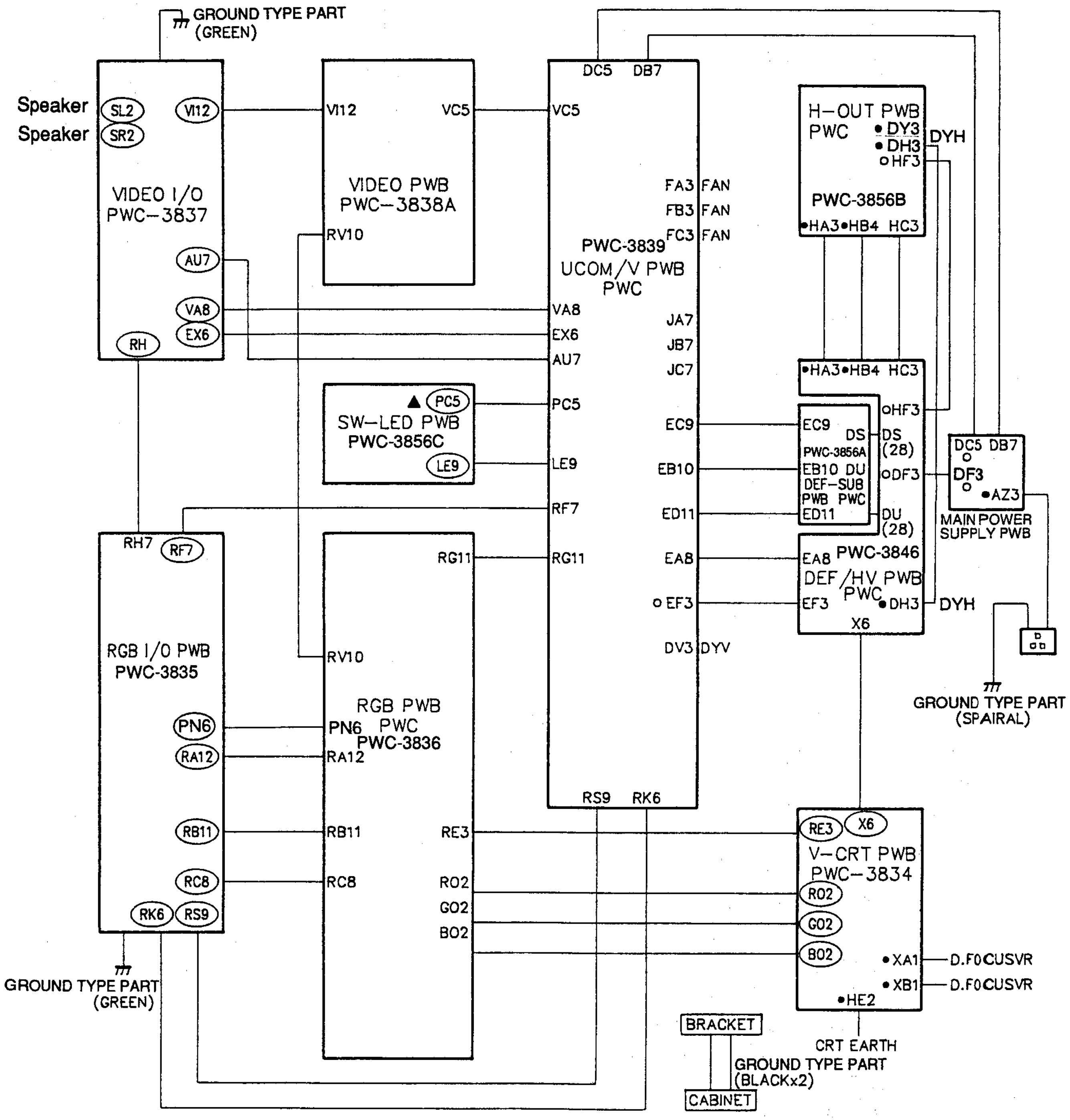
SYMBOL	PARTS NO	DESCRIPTION
C909	421D6009	C,CERAMIC 25V 0.1UF
C910	430B9029	C,ELEC 16V 100UF
C9101	430B9041	C,ELEC 25V 47UF
C9102	427F4619	C,FILM 50V 0.033UF
C9107	430B9029	C,ELEC 16V 100UF
C9108	430B9041	C,ELEC 25V 47UF
C911	430B9029	C,ELEC 16V 100UF
C912	430B9029	C,ELEC 16V 100UF
C9127	430B9065	C,ELEC 50V 10UF
C9128	423A2101	C,CERAMIC 50V 120PF
C9129	430B9062	C,ELEC 50V 2.2UF
C913	421C0213	C,CERAMIC 50V 1000PF
C9130	430B9062	C,ELEC 50V 2.2UF
C9131	430B9064	C,ELEC 50V 4.7UF
C9132	430B9061	C,ELEC 50V 1.0UF
C9133	427F4625	C,FILM 50V 0.1UF
C9134	423A2029	C,CERAMIC 50V 22PF
C9135	423A1051	C,CERAMIC 50V 180PF
C9136	430B9062	C,ELEC 50V 2.2UF
C9137	423A1101	C,CERAMIC 50V 470PF
C9138	4276D630	C,FILM 50V 0.27UF
C9139	430B9064	C,ELEC 50V 4.7UF
C914	421C0213	C,CERAMIC 50V 1000PF
C9140	430B9062	C,ELEC 50V 2.2UF
C9141	430B9064	C,ELEC 50V 4.7UF
C9142	430B9053	C,ELEC 35V 47UF
C9143	430B9039	C,ELEC 25V 22UF
C9144	4302J096	C,ELEC 100V 3.3UF
C9145	430B9053	C,ELEC 35V 47UF
C9146	421A0425	C,CERAMIC 50V 0.01UF
C9147	427F8051	C,FILM 50V 1000PF
C9148	423A2033	C,CERAMIC 50V 33PF
C915	421C0213	C,CERAMIC 50V 1000PF
C9150	421D6009	C,CERAMIC 25V 0.1UF
C9151	430B9061	C,ELEC 50V 1.0UF
C916	423A2105	C,CERAMIC 50V 270PF
C917	423A2105	C,CERAMIC 50V 270PF
C918	423A2105	C,CERAMIC 50V 270PF
C919	423A2102	C,CERAMIC 50V 150PF
C920	423A2102	C,CERAMIC 50V 150PF
C921	423A2102	C,CERAMIC 50V 150PF
C922	421D6009	C,CERAMIC 25V 0.1UF
C924	423A1053	C,CERAMIC 50V 220PF
C925	42019175	C,CERAMIC 2KV 0.01UF
C926	42034151	C,CERAMIC 2KV 4700UF
C927	4309J173	C,ELEC 200V 220UF
C928	42074702	C,CERAMIC 2.0KV 120PF
C929	42074702	C,CERAMIC 2.0KV 120PF
C930	42074702	C,CERAMIC 2.0KV 120PF
C943	423A2045	C,CERAMIC 50V 100PF
C944	423A2045	C,CERAMIC 50V 100PF
C945	423A2045	C,CERAMIC 50V 100PF
C946	421D6009	C,CERAMIC 25V 0.1UF

XM-2950G

* Other than the fllowing is the same as described of the XM-2950.

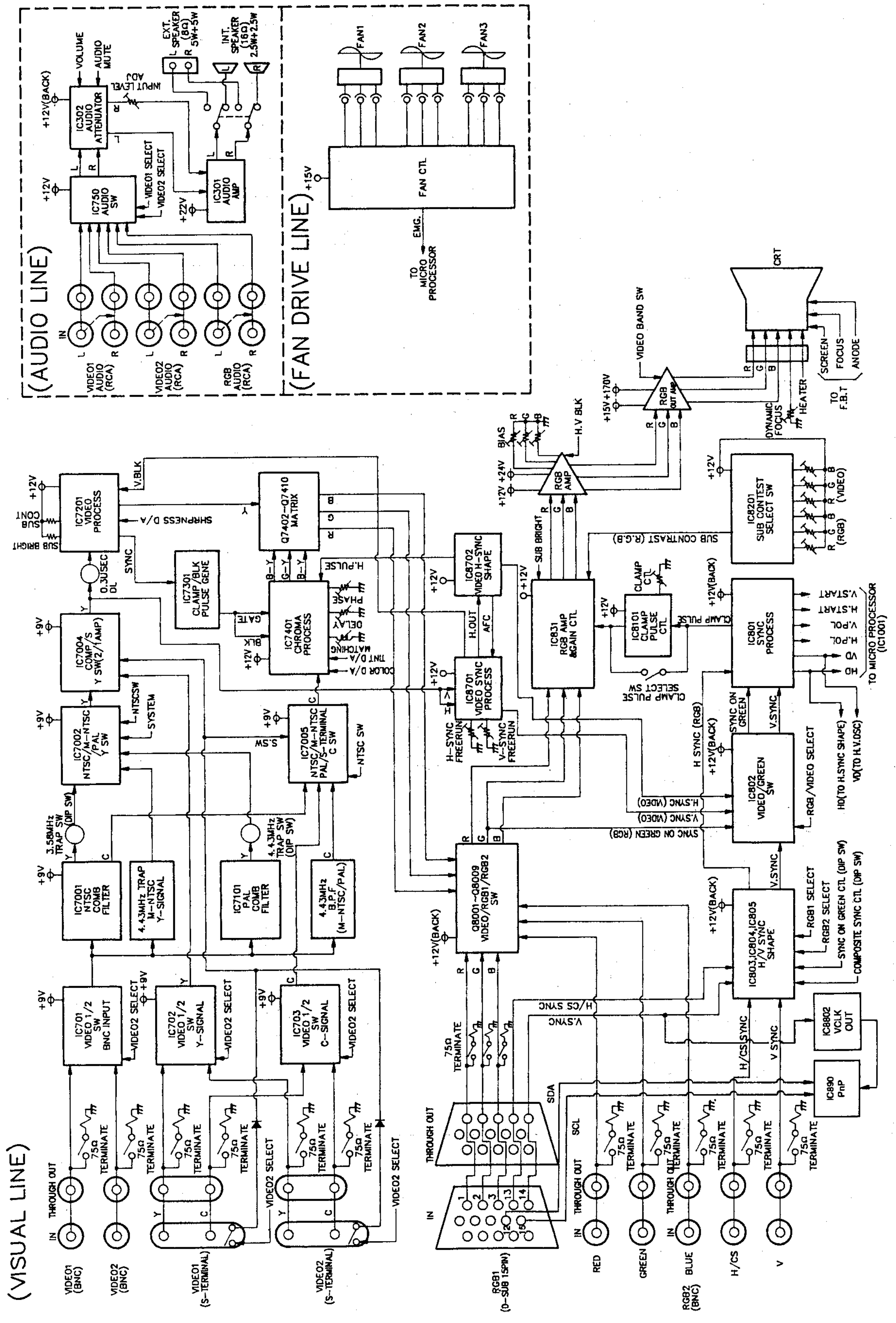
SYMBOL	PARTS NO	DESCRIPTION
*** APPEARANCE PARTS ***		
	24L28581	CAUTION LABEL
	24L29421	SERIAL NUMBER LABEL
	24L32151	NAME PLATE
*** PRINTED & PACKING MATERIALS ***		
	24MT9081	CARTON BOX
	24M14211	PAPER BAG (270*382)
	24813191	BAG, POLYETHYLENE
*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***		
	70800033	POWER CORD
	78036451	SUPPLEMENT SHFET
	78048501	X-RAY LICENSE
	78405891	USER'S MANUAL XM-2950G
	79642703	REM-T HAND UNIT RD-335E
	79643061	POWER UNIT
*** CAPACITORS ***		
C947	423A2025	C, CERAMIC 50V 15PF
C948	423A2025	C, CERAMIC 50V 15PF
C949	423A2025	C, CERAMIC 50V 15PF
*** COILS & FILTERS ***		
FL803	616K6824	NOISE FILTER
FL804	616K6824	NOISE FILTER
FL805	616K6824	NOISE FILTER
WI DEG	61329201	COIL, DEGAUSSING

CONNECTION DIAGRAM


GROUND TYPE PART
(GREEN)
Speaker
Speaker
SL2
SR2
VI12
VIDEO I/O
PWC-3837
AU7
VA8
EX6
RH
VI12
VC5
VIDEO PWB
PWC-3838A
RV10
DC5
DB7
VC5
FA3
FB3
FC3
FAN
FAN
FAN
PWC-3839
UCOM/V PWB
PWC
VA8
EX6
AU7
JA7
JB7
JC7
PC5
LE9
RF7
RG11
EC9
EB10
ED11
EA8
EF3
DV3
DYV
RS9
RK6
H-OUT PWB
PWC
DY3
DH3
HF3
DYH
PWC-3856B
HA3
HB4
HC3
HA3
HB4
HC3
HF3
EC9
DS
PWC-3856A
EB10
DU
DEF-SUB
PWB
PWC
ED11
DS
(28)
DF3
DU
(28)
DC5
DB7
DF3
AZ3
MAIN POWER
SUPPLY PWB
EA8
PWC-3846
DEF/HV PWB
PWC
EF3
DH3
DYH
X6
GROUND TYPE PART
(SPAIRAL)
PC5
SW-LED PWB
PWC-3856C
LE9
RH7
RF7
RGB I/O PWB
PWC-3835
PN6
RA12
RB11
RC8
RK6
RS9
GROUND TYPE PART
(GREEN)
RG11
RV10
RGB PWB
PN6
PWC
PWC-3836
RA12
RB11
RE3
RC8
RO2
GO2
BO2
RE3
X6
V-CRT PWB
PWC-3834
RO2
GO2
BO2
XA1
XB1
HE2
D.FOCUSVR
D.FOCUSVR
CRT EARTH
BRACKET
GROUND TYPE PART
(BLACKx2)
CABINET

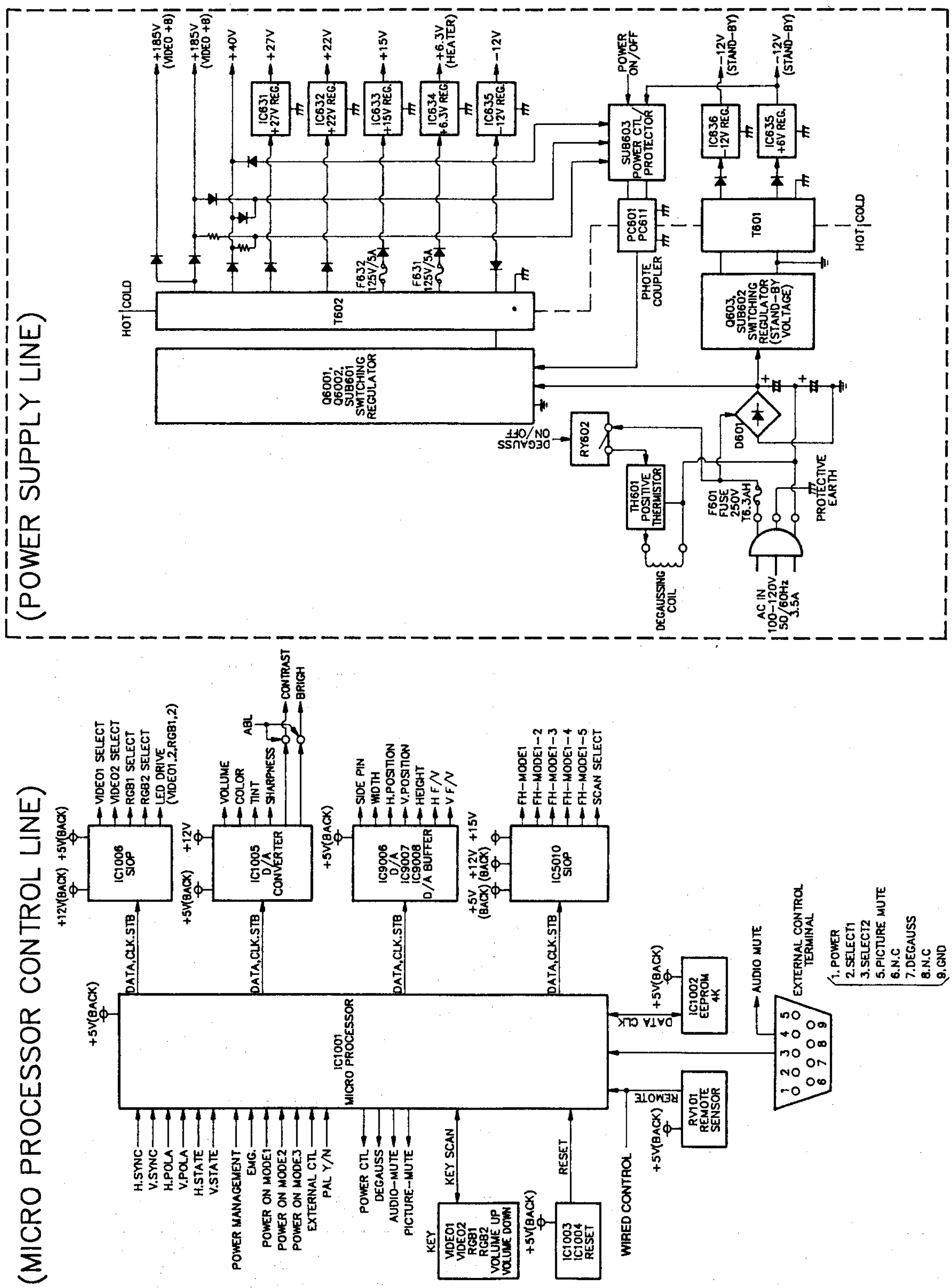
◯ : BOARD IN CONNECTOR
• : OCTAL CONNECTOR
o : MINI CONNECTOR
: EH CONNECTOR
▲ : TLB CONNECTOR

BLOCK DIAGRAM

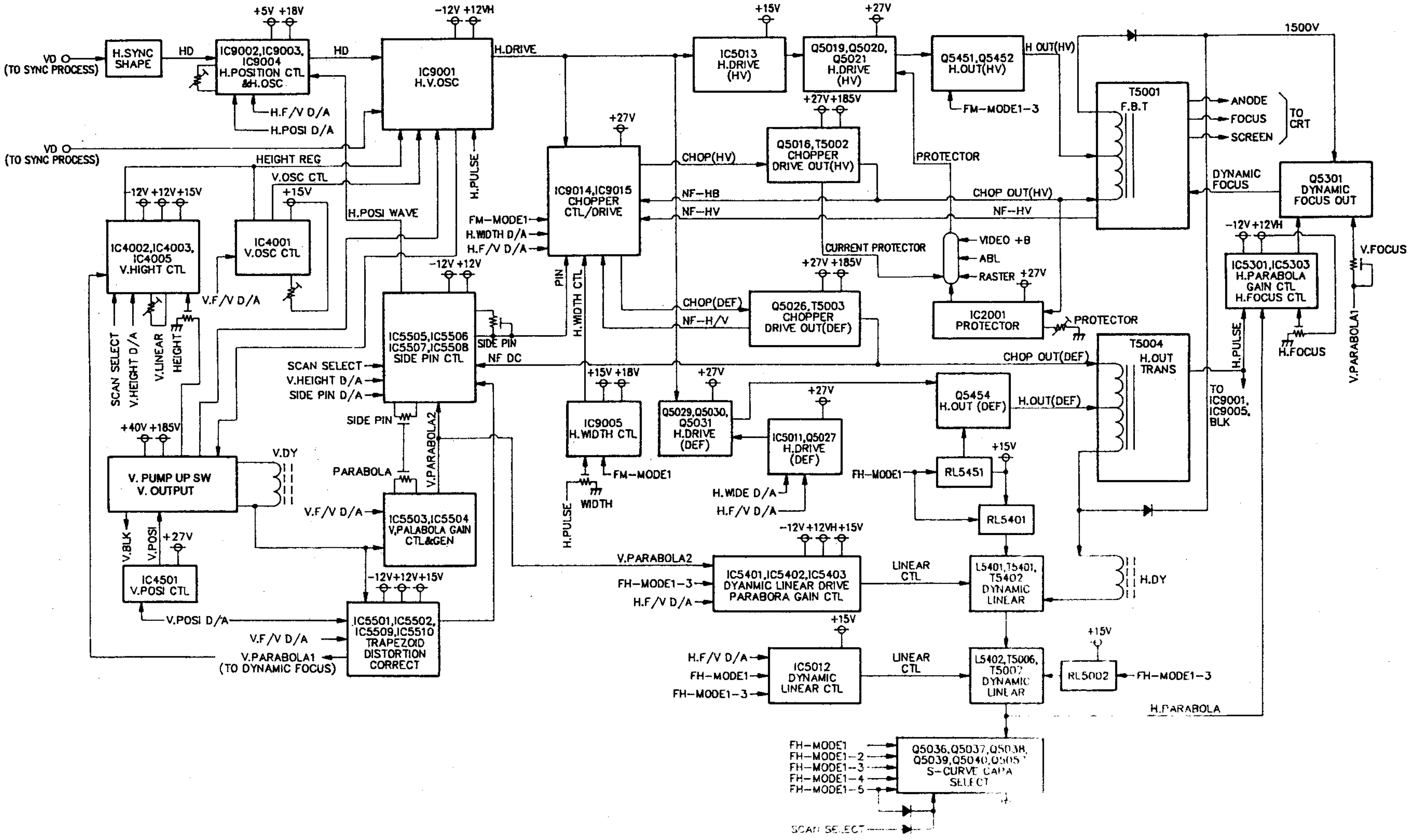


(AUDIO LINE)
(FAN DRIVE LINE)
(VISUAL LINE)
IC302 AUDIO ATTENUATOR
IC750 AUDIO SW
IC301 AUDIO AMP
VOLUME
AUDIO MUTE
INPUT LEVEL ADJ
EXT. SPEAKER (8Ω) 5W+5W
INT. SPEAKER (16Ω) 2.5W+2.5W
VIDEO1 AUDIO (RCA)
VIDEO2 AUDIO (RCA)
RGB AUDIO (RCA)
FAN1
FAN2
FAN3
FAN CTL
TO MICRO PROCESSOR
EMG.
CRT
VIDEO BAND SW
SCREEN
FOCUS
ANODE
TO F.B.T
HEATER
DYNAMIC FOCUS
RGB OUT AMP
RGB AMP
BIAS
H.V BLK
IC7201 VIDEO PROCESS
Q7402–Q7410 MATRIX
IC7301 CLAMP/BLK PULSE GENE
IC7401 CHROMA PROCESS
IC7004 COMP/S Y SW(2/AMP)
IC7002 NTSC/M-NTSC/PAL Y SW
IC7005 NTSC/M-NTSC PAL/S-TERMINAL C SW
IC7001 NTSC COMB FILTER
4.43MHz TRAP M-NTSC Y-SIGNAL
IC7101 PAL COMB FILTER
4.43MHz B.P.F (M-NTSC/PAL)
IC701 VIDEO 1/2 SW BNC INPUT
IC702 VIDEO 1/2 SW Y-SIGNAL
IC703 VIDEO 1/2 SW C-SIGNAL
IC8702 VIDEO H-SYNC SHAPE
IC8701 VIDEO SYNC PROCESS
IC831 RGB AMP &GAIN CTL
IC8101 CLAMP PULSE CTL
IC8201 SUB CONTEST SELECT SW
IC801 SYNC PROCESS
IC802 VIDEO/GREEN SW
Q8001–Q8009 VIDEO/RGB1/RGB2 SW
IC803,IC804,IC805 H/V SYNC SHAPE
IC8802 VCLK OUT
IC890 PnP
TO MICRO PROCESSOR (IC1001)
V.START
H.START
V.POL
H.POL
VD
HD
HD(TO H.SYNC SHAPE)
VD(TO H.V.OSC)
RGB/VIDEO SELECT
RGB1 SELECT
RGB2 SELECT
SYNC ON GREEN CTL (DIP SW)
COMPOSITE SYNC CTL (DIP SW)
CLAMP PULSE SELECT SW
SUB CONTRAST (R.G.B)
SUB BRIGHT
SUB CONT
SHARPNESS D/A
COLOR D/A
TINT D/A
MATCHING
DELAY
PHASE
H.PULSE
0.3USEC DL
3.58MHz TRAP SW (DIP SW)
4.43MHz TRAP SW (DIP SW)
NTSC SW
S.SW
SYSTEM
H-SYNC FREERUN
V-SYNC FREERUN
H.SYNC (VIDEO)
V.SYNC (VIDEO)
SYNC ON GREEN (RGB)
H SYNC (RGB)
H/CS SYNC
V.SYNC
75Ω TERMINATE
THROUGH OUT
VIDEO2 SELECT
VIDEO1 (BNC)
VIDEO2 (BNC)
VIDEO1 (S-TERMINAL)
VIDEO2 (S-TERMINAL)
RGB1 (D-SUB 15PIN)
RGB2 (BNC)
RED
GREEN
BLUE
H/CS
V
SDA
SCL

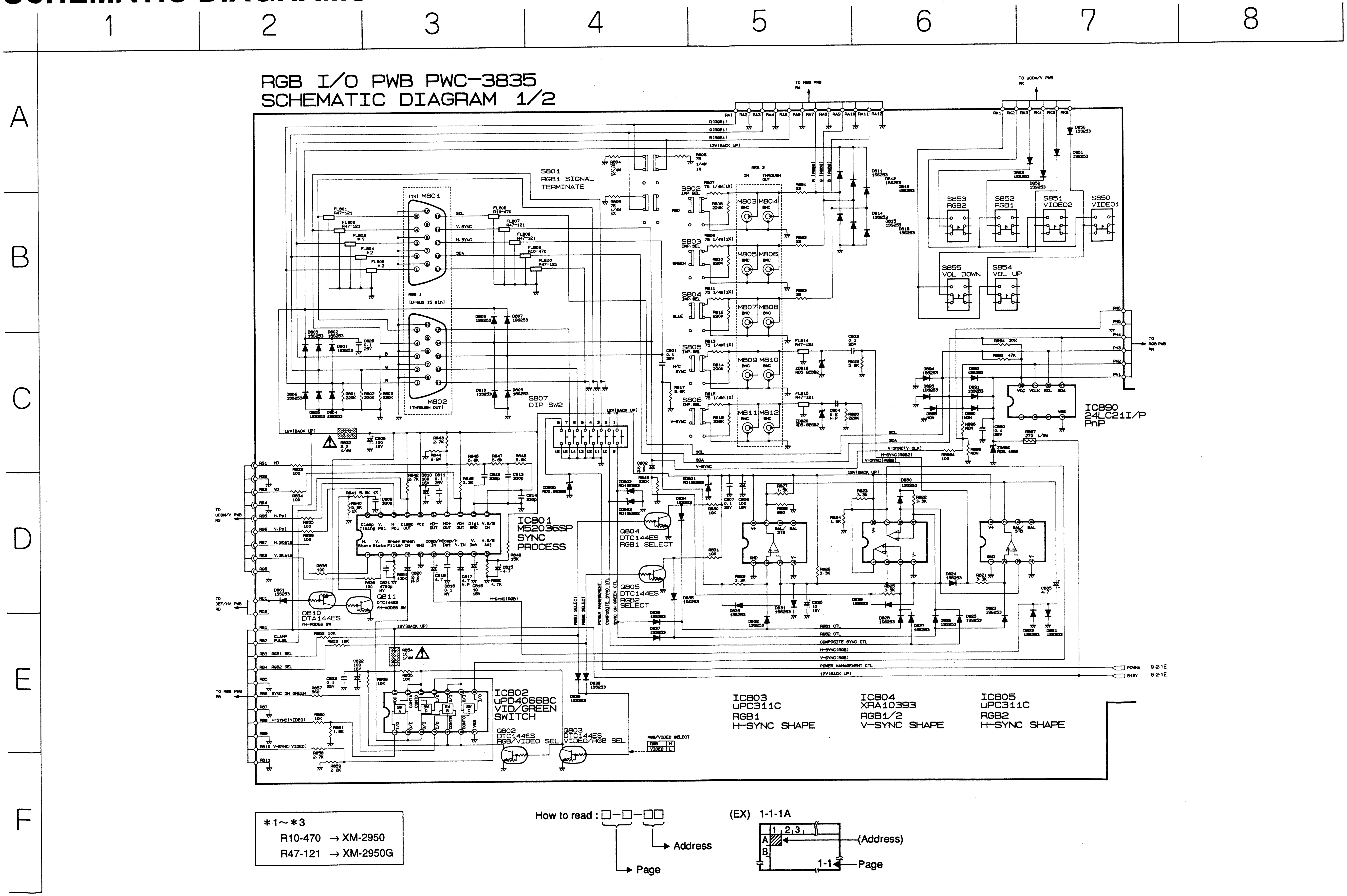
BLOCK DIAGRAM


(POWER SUPPLY LINE)
+185V (VIDEO +8)
+185V (VIDEO +8)
+40V
+27V
+22V
+15V
+6.3V (HEATER)
-12V
IC631 +27V REG.
IC632 +22V REG.
IC633 +15V REG.
IC634 +6.3V REG.
IC635 -12V REG.
POWER ON/OFF
SUB603 POWER CTL/ PROTECTOR
-12V (STAND-BY)
-12V (STAND-BY)
IC636 -12V REG.
IC635 +6V REG.
PC601 PC611
PHOTE COUPLER
T601
HOT COLD
HOT COLD
T602
F632 125V/5A
F631 125V/5A
Q6001, Q6002, SUB601 SWITCHING REGULATOR
Q603, SUB602 SWITCHING REGULATOR (STAND-BY VOLTAGE)
DEGAUSS ON/OFF
RY602
TH601 POSITIVE THERMISTOR
D601
F601 FUSE 250V T6.3AH
PROTECTIVE EARTH
DEGAUSSING COIL
AC IN 100-120V 50/60Hz 3.5A
(MICRO PROCESSOR CONTROL LINE)
+12V(BACK) +5V(BACK)
IC1006 SIOP
VIDEO1 SELECT
VIDEO2 SELECT
RGB1 SELECT
RGB2 SELECT
LED DRIVE (VIDEO1,2,RGB1,2)
+5V(BACK) +12V
IC1005 D/A CONVERTER
VOLUME
COLOR
TINT
SHARPNESS
ABL
CONTRAST
BRIGH
+5V(BACK)
IC9006 D/A IC9007 IC9008 D/A BUFFER
SIDE PIN
WIDTH
H.POSITION
V.POSITION
HEIGHT
H F/V
V F/V
+5V (BACK) +12V (BACK) +15V
IC5010 SIOP
FH-MODE1
FH-MODE1-2
FH-MODE1-3
FH-MODE1-4
FH-MODE1-5
SCAN SELECT
DATA,CLK,STB
DATA,CLK,STB
DATA,CLK,STB
DATA,CLK,STB
+5V(BACK)
IC1001 MICRO PROCESSOR
DATA CLK
+5V(BACK)
IC1002 EEPROM 4K
AUDIO MUTE
EXTERNAL CONTROL TERMINAL
1 2 3 4 5
6 7 8 9
1. POWER
2. SELECT1
3. SELECT2
5. PICTURE MUTE
6. N.C
7. DEGAUSS
8. N.C
9. GND
REMOTE
+5V(BACK)
RV101 REMOTE SENSOR
WIRED CONTROL
H.SYNC
V.SYNC
H.POLA
V.POLA
H.STATE
V.STATE
POWER MANAGEMENT
EMG.
POWER ON MODE1
POWER ON MODE2
POWER ON MODE3
EXTERNAL CTL
PAL Y/N
POWER CTL
DEGAUSS
AUDIO-MUTE
PICTURE-MUTE
KEY SCAN
KEY
VIDEO1
VIDEO2
RGB1
RGB2
VOLUME UP
VOLUME DOWN
RESET
+5V(BACK)
IC1003 IC1004 RESET

(DEFLECTION, HEGH VOLTAGE LINE)


VD
(TO SYNC PROCESS)
H.SYNC SHAPE
HD
+5V +18V
IC9002,IC9003, IC9004 H.POSITION CTL &H.OSC
H.F/V D/A
H.POSI D/A
HD
-12V +12VH
IC9001 H.V.OSC
H.DRIVE
H.PULSE
VD
(TO SYNC PROCESS)
HEIGHT REG
V.OSC CTL
+15V
IC4001 V.OSC CTL
H.POSI WAVE
-12V +12V+15V
IC4002,IC4003, IC4005 V.HIGHT CTL
V.F/V D/A
SCAN SELECT
V.HEIGHT D/A
V.LINEAR
HEIGHT
+40V +185V
V. PUMP UP SW V. OUTPUT
V.DY
V.BLK
V.POSI
+27V
IC4501 V.POSI CTL
V.POSI D/A
+27V
IC9014,IC9015 CHOPPER CTL/DRIVE
FM-MODE1
H.WIDTH D/A
H.F/V D/A
PIN
H.WIDTH CTL
-12V +12V
IC5505,IC5506 IC5507,IC5508 SIDE PIN CTL
SIDE PIN
NF DC
SCAN SELECT
V.HEIGHT D/A
SIDE PIN D/A
SIDE PIN
PARABOLA
V.PARABOLA2
V.F/V D/A
IC5503,IC5504 V,PALABOLA GAIN CTL&GEN
-12V+12V+15V
IC5501,IC5502, IC5509,IC5510 TRAPEZOID DISTORTION CORRECT
V.F/V D/A
V.PARABOLA1 (TO DYNAMIC FOCUS)
+15V +18V
IC9005 H.WIDTH CTL
FM-MODE1
WIDTH
H.PULSE
+15V
IC5013 H.DRIVE (HV)
+27V
Q5019,Q5020, Q5021 H.DRIVE (HV)
+27V+185V
Q5451,Q5452 H.OUT(HV)
FM-MODE1-3
H OUT(HV)
CHOP(HV)
Q5016,T5002 CHOPPER DRIVE OUT(HV)
NF-HB
NF-HV
PROTECTOR
CHOP OUT(HV)
NF-HV
CURRENT PROTECTOR
+27V +185V
VIDEO +B
ABL
RASTER
+27V
IC2001 PROTECTOR
PROTECTOR
CHOP(DEF)
NF-H/V
Q5026,T5003 CHOPPER DRIVE OUT(DEF)
CHOP OUT(DEF)
+27V
Q5029,Q5030, Q5031 H.DRIVE (DEF)
+27V
IC5011,Q5027 H.DRIVE (DEF)
H.WIDE D/A
H.F/V D/A
Q5454 H.OUT (DEF)
H.OUT(DEF)
FH-MODE1
+15V
RL5451
RL5401
1500V
T5001 F.B.T
ANODE
FOCUS
SCREEN
TO CRT
DYNAMIC FOCUS
Q5301 DYNAMIC FOCUS OUT
-12V +12VH
IC5301,IC5303 H.PARABOLA GAIN CTL H.FOCUS CTL
V.FOCUS
H.FOCUS
V.PARABOLA1
H.PULSE
T5004 H.OUT TRANS
TO IC9001, IC9005, BLK
-12V+12VH+15V
V.PARABOLA2
FH-MODE1-3
H.F/V D/A
IC5401,IC5402,IC5403 DYANMIC LINEAR DRIVE PARABORA GAIN CTL
LINEAR CTL
L5401,T5401, T5402 DYNAMIC LINEAR
H.DY
+15V
H.F/V D/A
FH-MODE1
FH-MODE1-3
IC5012 DYNAMIC LINEAR CTL
LINEAR CTL
L5402,T5006, T5007 DYNAMIC LINEAR
+15V
RL5002
FH-MODE1-3
H.PARABOLA
FH-MODE1
FH-MODE1-2
FH-MODE1-3
FH-MODE1-4
FH-MODE1-5
Q5036,Q5037,Q5038, Q5039,Q5040,Q505?
S-CURVE CAPA SELECT
SCAN SELECT

SCHEMATIC DIAGRAMS



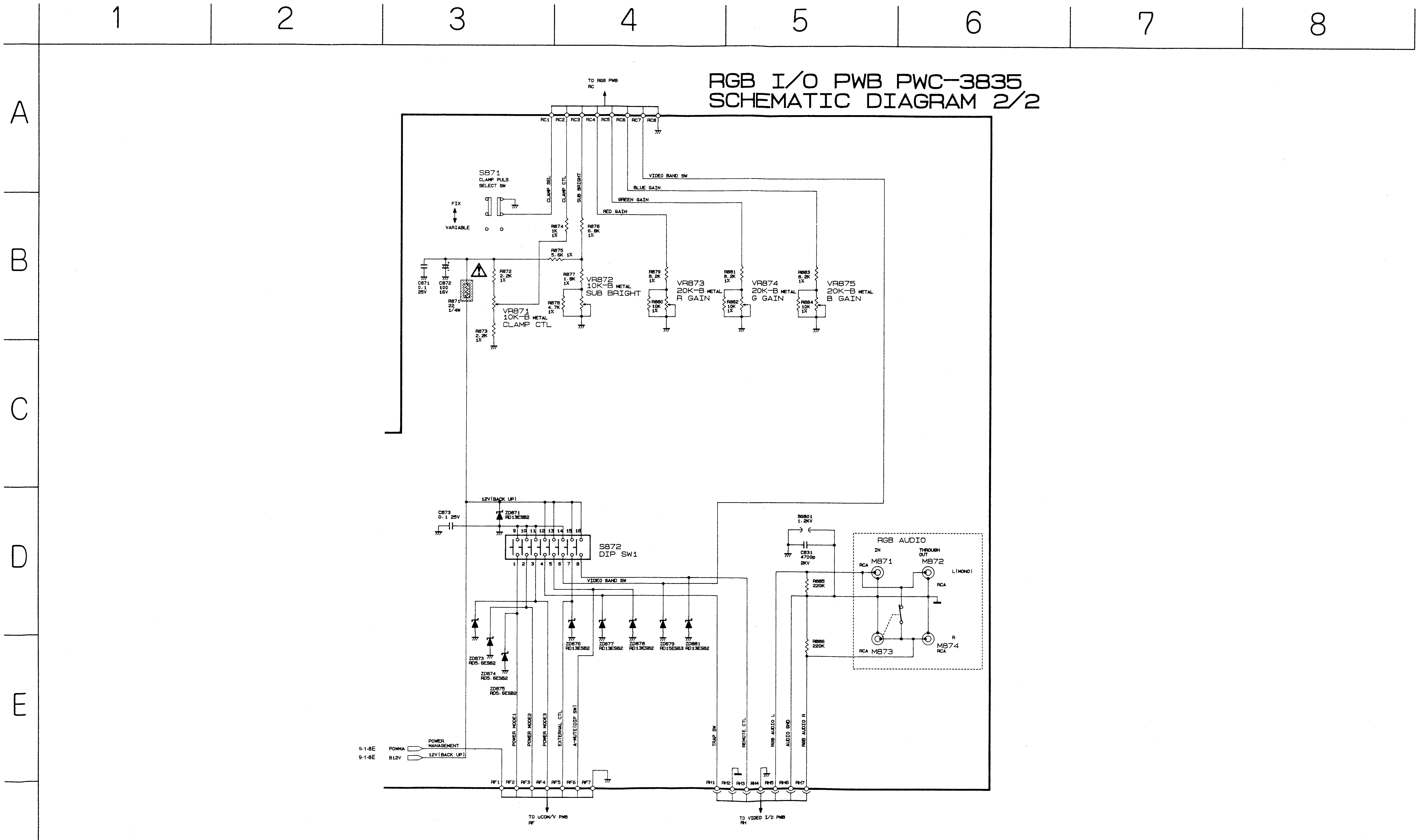
RGB I/O PWB PWC-3835
SCHEMATIC DIAGRAM 1/2

1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO RGB PWB RA
TO uCOM/V PWB RK
S801 RGB1 SIGNAL TERMINATE
S802 IMP. SEL
S803 IMP. SEL
S804 IMP. SEL
S805 IMP. SEL
S806 IMP. SEL
S807 DIP SW2
M801 RGB 1 (D-sub 15 pin)
M802 (THROUGH OUT)
M803 M804
M805 M806
M807 M808
M809 M810
M811 M812
RED
GREEN
BLUE
H/V SYNC
V-SYNC
S853 RGB2
S852 RGB1
S851 VIDEO2
S850 VIDEO1
S855 VOL DOWN
S854 VOL UP
IC890 24LC21I/P PnP
TO RGB PWB PN
TO uCOM/V PWB RB
TO DEF/HV PWB RD
TO RGB PWB RE
IC801 M52036SP SYNC PROCESS
Q810 DTA144ES fH-MODES SW
Q811 DTC144ES fH-MODES SW
Q804 DTC144ES RGB1 SELECT
Q805 DTC144ES RGB2 SELECT
IC802 uPD4066BC VID/GREEN SWITCH
Q802 DTC144ES RGB/VIDEO SEL
Q803 DTC144ES VIDEO/RGB SEL
RGB/VIDEO SELECT
RGB H
VIDEO L
IC803 uPC311C RGB1 H-SYNC SHAPE
IC804 XRA10393 RGB1/2 V-SYNC SHAPE
IC805 uPC311C RGB2 H-SYNC SHAPE
12V(BACK UP)
POWER MANAGEMENT CTL
RGB1 CTL
RGB2 CTL
COMPOSITE SYNC CTL
H-SYNC(RGB)
V-SYNC(RGB)
POWNA 9-2-1E
B12V 9-2-1E
(EX) 1-1-1A
(Address)
Page

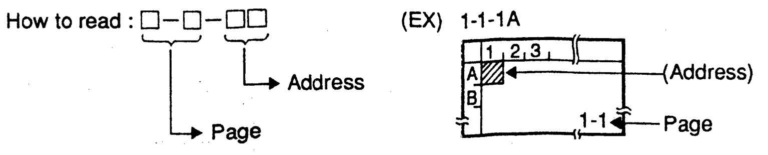
*1~*3
R10-470 → XM-2950
R47-121 → XM-2950G

How to read : □-□-□□
Address
Page

RGB I/O PWB PWC-3835 SCHEMATIC DIAGRAM 2/2


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO RGB PWB
RC
RC1
RC2
RC3
RC4
RC5
RC6
RC7
RC8
S871
CLAMP PULS
SELECT SW
FIX
VARIABLE
CLAMP SEL
CLAMP CTL
SUB BRIGHT
VIDEO BAND SW
BLUE GAIN
GREEN GAIN
RED GAIN
R874
1K
1%
R876
6.8K
1%
R875
5.6K 1%
C871
0.1
25V
C872
100
16V
R871
22
1/4W
R872
2.2K
1%
VR871
10K-B METAL
CLAMP CTL
R873
2.2K
1%
R877
1.8K
1%
R878
4.7K
1%
VR872
10K-B METAL
SUB BRIGHT
R879
8.2K
1%
R880
10K
1%
VR873
20K-B METAL
R GAIN
R881
8.2K
1%
R882
10K
1%
VR874
20K-B METAL
G GAIN
R883
8.2K
1%
R884
10K
1%
VR875
20K-B METAL
B GAIN
12V(BACK UP)
C873
0.1 25V
ZD871
RD13ESB2
S872
DIP SW1
9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8
VIDEO BAND SW
ZD873
RD5.6ESB2
ZD874
RD5.6ESB2
ZD875
RD5.6ESB2
ZD876
RD13ESB2
ZD877
RD13ESB2
ZD878
RD13ESB2
ZD879
RD15ESB3
ZD881
RD13ESB2
SG801
1.2KV
C831
4700p
2KV
R885
220K
R886
220K
RGB AUDIO
IN
THROUGH
OUT
RCA
M871
M872
L(MONO)
RCA
R
M873
M874
RCA
POWER MODE1
POWER MODE2
POWER MODE3
EXTERNAL CTL
A-MUTE(DIP SW)
TRAP SW
REMOTE CTL
RGB AUDIO L
AUDIO GND
RGB AUDIO R
9-1-8E
POWMA
POWER
MANAGEMENT
9-1-8E
B12V
12V(BACK UP)
RF1
RF2
RF3
RF4
RF5
RF6
RF7
RH1
RH2
RH3
RH4
RH5
RH6
RH7
TO uCOM/V PWB
RF
TO VIDEO I/O PWB
RH

How to read : □-□-□□


Address
Page
(EX) 1-1-1A
1, 2, 3,
A
B
(Address)
1-1
Page

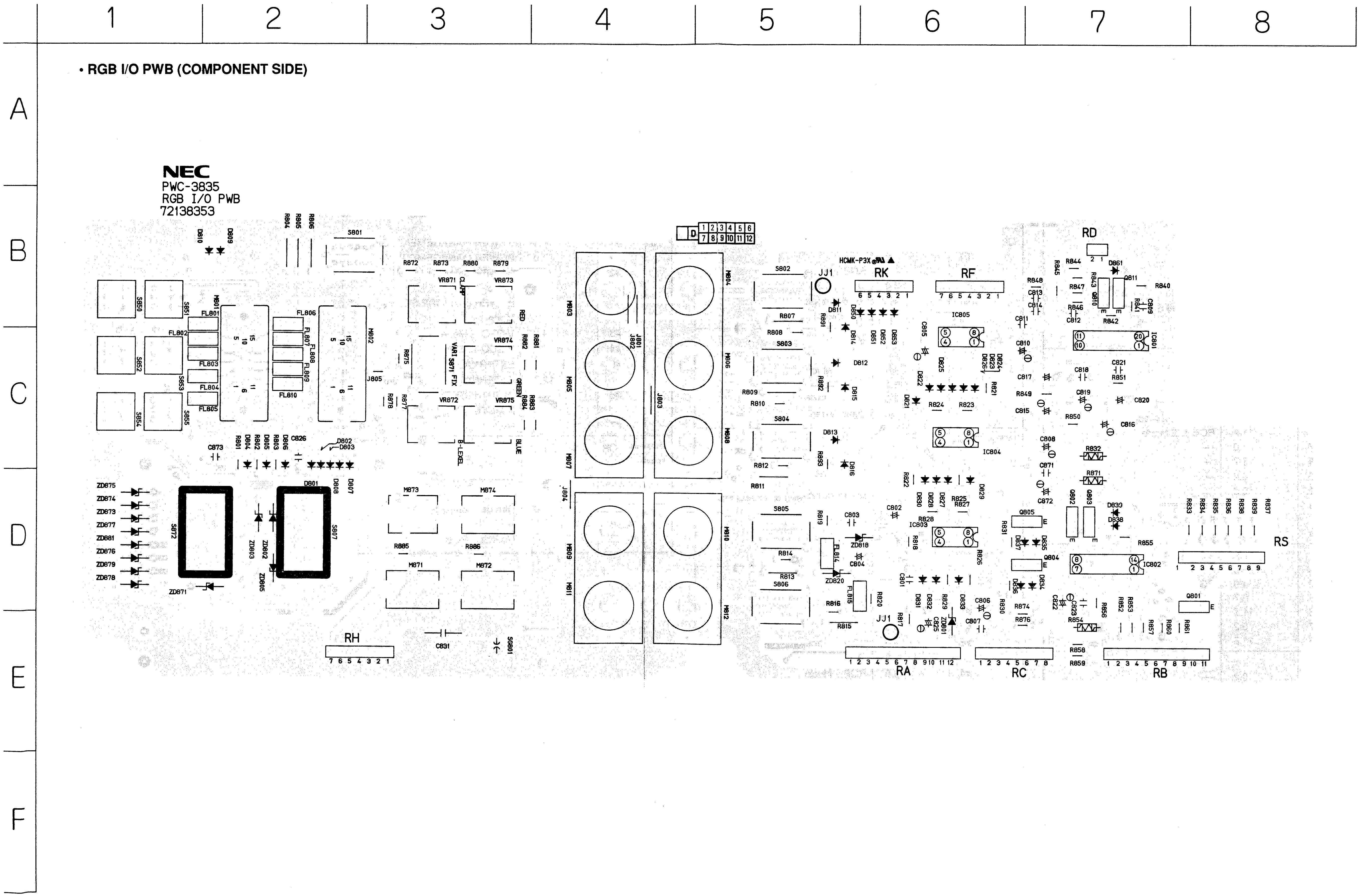
RGB I/O PWB VOLTAGE

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC801		
#1	0	SYNC ON Green or VIDEO Mode
#2	4.1	V. SYNC IN
#3	5.4	—
#4	5.4	—
#5	0	—
#6	6.1	—
#7	6.1	—
#8	6.1	—
#9	10.7	—
#10	2.3	—
#11	0.4	—
#12	0	—
#13	0.2	—
#14	0.3	—
#15	0	—
#16	11.8	—
#17	0.3	—
#18	0	SYNC ON Green or VIDEO Mode
#19	0	ditto
#20	3.4	—
IC802		
#1	1.7	—
#2, #3	1.7	—
#4	1.4	—
#5, #6	0	VIDEO 1, 2 Mode
	11.9	RGB 1, 2 Mode
#7	0	—
#8	3.7	—
#9, #10	0.2	—
#11	0.2	—
#12, #13	10.0	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
#14	12.0	
IC803		
#1, #4	0	
#2	4.9	RGB 2 Mode
#3	0.7	
#5, #6	11.7	—
#7	0.2	—
#8	11.8	—
IC804		
#1	0.2	—
#2	0.7	—
#3	5.1	RGB 2 Mode
#4	0	—
#5	5.1	RGB 1 Mode
#6	0.7	—
#7	0.2	—
#8	11.8	—
IC805		
#1, #4	0	—
#2	4.9	RGB 1 Mode
#3	0.7	—
#5, #6	11.7	—
#7	0.2	—
#8	11.8	—

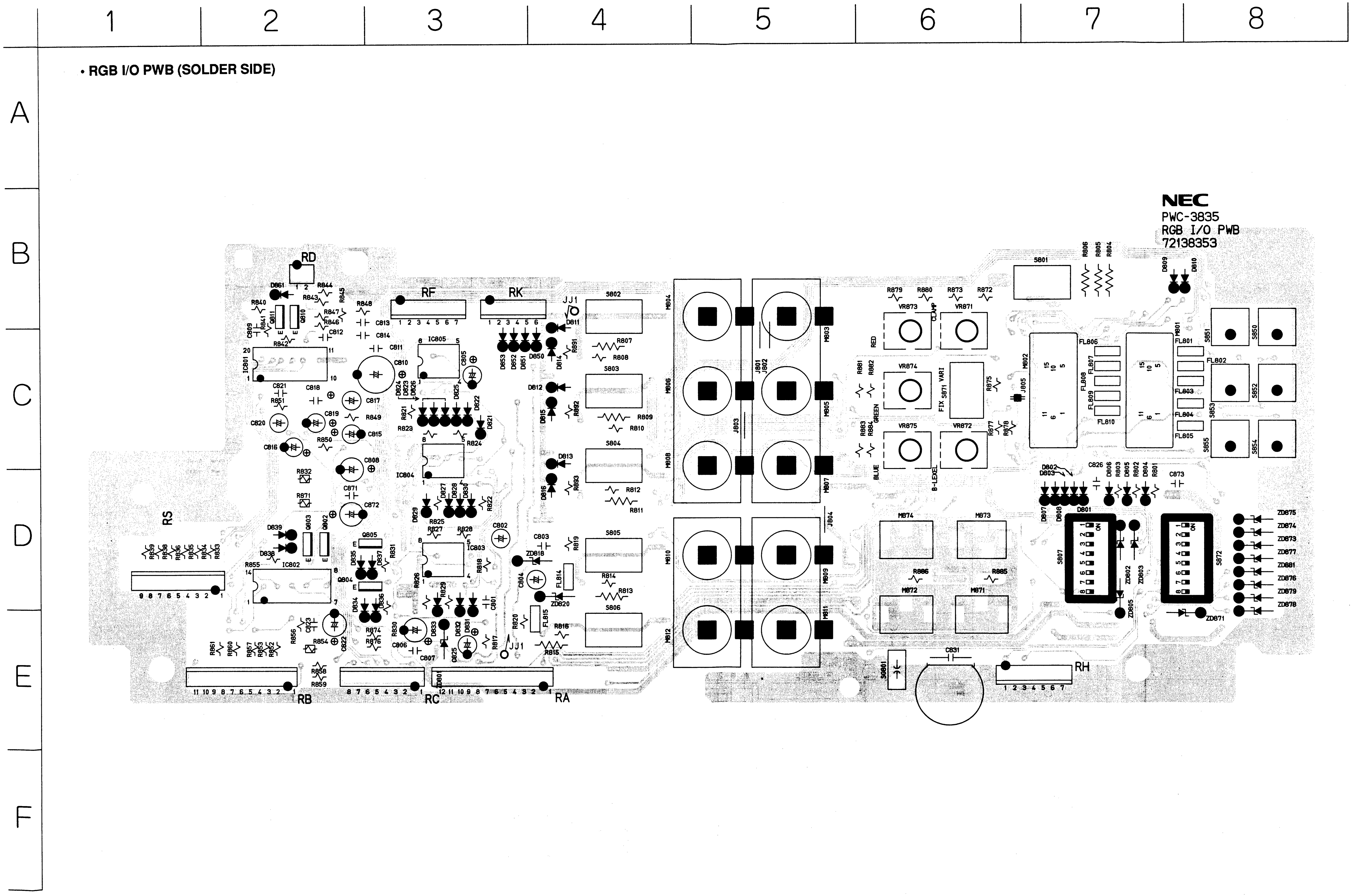
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q802		
(E)	0	—
(C)	0	VIDEO 1, 2 Mode
	11.9	RGB 1, 2 Mode
(B)	10.0	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
Q803		
(E)	0	—
(C)	10.0	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
(B)	0	VIDEO 1, 2 Mode
	4.0	RGB 1, 2 Mode
Q804		
(E)	0	—
(C)	0	RGB 1 Mode
	6.0	Other Mode
(B)	4.5	RGB 1 Mode
	0	Other Mode
Q805		
(E)	0	—
(C)	0	RGB 2 Mode
	6.1	Other Mode
(B)	4.5	RGB 2 Mode
	0	Other Mode
CONNECTOR "RS"		
#1	0.3	—
#3	0.2	—
#5	0	SYNC ON Green or VIDEO Mode
#6	0	ditto
#7	0	ditto
#8	4.1	V. SYNC IN
#2, #4, #9	0	—
CONNECTOR "RB"		
#1	12.0	—
#2	0.3	—
#3	6.0	RGB 1 Mode
	0	Other Mode
#4	6.0	RGB 2 Mode
	0	Other Mode
#6	1.7	—
#8	11.1	—
#0	0.4	—
#5, #7, #9, #11	0	—
CONNECTOR "RA"		
All pins	0	No Input RGB 1, 2 Signal
CONNECTOR "RK"		
All pins	0	—

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "RC"		
#1	4.3	CLAMP SELECT "VARI" Mode
	0	CLAMP SELECT "FIX" Mode
#2	2.0~10.0	CLAMP CTL Volume
#3	3.0~5.1	SUB BRIGHT Volume
#4	4.0~5.3	R GAIN Volume
#5	4.2~5.2	G GAIN Volume
#6	4.0~5.3	B GAIN Volume
#7	10.0	VIDEO BAND SW "Normal" Mode
	0	VIDEO BAND SW "NARROW" Mode
#8	0	—
CONNECTOR		
"RF" #1	4.4	POWER MANAGEMENT "OFF"
	0	POWER MANAGEMENT "ON"
#2	4.3	POWER ON MODE SELECT "OFF" Mode
	0	POWER ON MODE SELECT "ON" Mode
#3	4.3	VIDEO 1, Mode
#4	4.3	VIDEO 1, Mode
#5	0	EXTERNAL CTL "OFF" Mode
	12.0	EXTERNAL CTL "ON" Mode
#6	0	A-MUTE "OFF"
	0	A-MUTE "ON"
#7	0	—
CONNECTOR "RH"		
#1	12.0	TRAP Switch "ON"
#2	—	—
#3	12.0	Remote Control SW "ON"
#4, #6	0	—
#5, #7	0	No Input "RGB AUDIO"

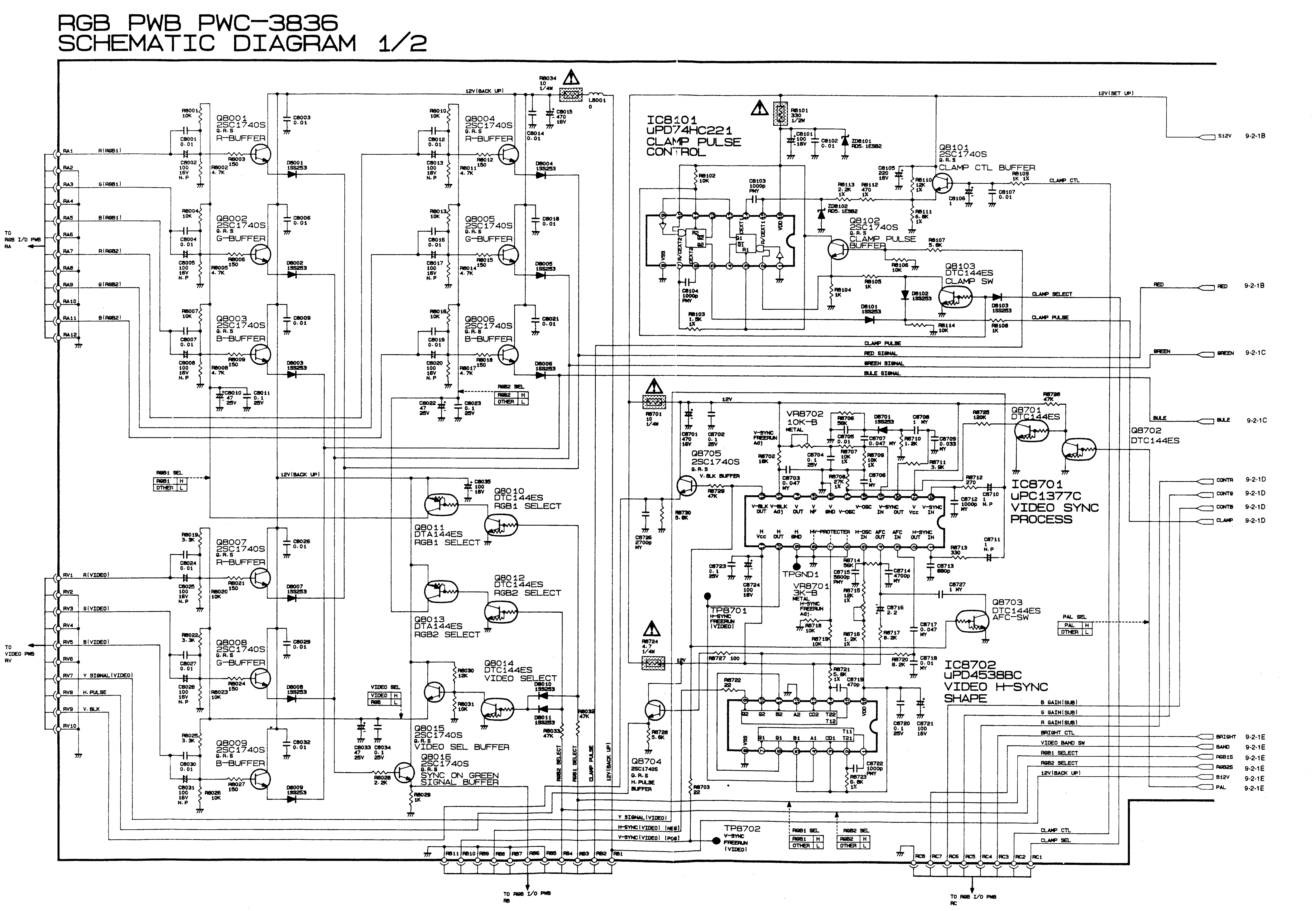
- **RGB I/O PWB (COMPONENT SIDE)**


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
PWC-3835
RGB I/O PWB
72138353
RH
RK
RF
RD
RS
RA
RC
RB
JJ1
HCMK-P3X
IC801
IC802
IC803
IC804
IC805
CLAMP
RED
GREEN
BLUE
B-LEVEL
VARI S871 FIX

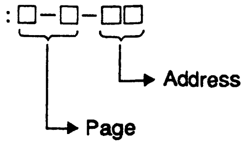
• RGB I/O PWB (SOLDER SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
PWC-3835
RGB I/O PWB
72138353
RD
RF
RK
RS
RB
RC
RA
RH
JJ1
IC801
IC802
IC803
IC804
IC805
S801
S802
S803
S804
S805
S806
S807
S850
S851
S852
S853
S854
S855
S871 VARI
S872
S881
J801
J802
J803
J804
J805
M801
M802
M803
M804
M805
M806
M807
M808
M809
M810
M811
M812
M871
M872
M873
M874
VR871
VR872
VR873
VR874
VR875
RED
GREEN
BLUE
CLAMP
FIX
B-LEVEL
FL801
FL802
FL803
FL804
FL805
FL806
FL807
FL808
FL809
FL810
FL814
FL815
C831
ZD871
ZD875
ZD874
ZD873
ZD877
ZD881
ZD876
ZD879
ZD878
ZD802
ZD803
ZD805
ZD818
ZD820
Q802
Q803
Q804
Q805
Q810
Q811
ON

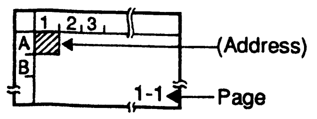
RGB PWB PWC-3836
SCHEMATIC DIAGRAM 1/2


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO RGB I/O PWB RA
TO VIDEO PWB RV
Q8001 2SC1740S R-BUFFER
Q8002 2SC1740S G-BUFFER
Q8003 2SC1740S B-BUFFER
Q8004 2SC1740S R-BUFFER
Q8005 2SC1740S G-BUFFER
Q8006 2SC1740S B-BUFFER
Q8007 2SC1740S R-BUFFER
Q8008 2SC1740S G-BUFFER
Q8009 2SC1740S B-BUFFER
Q8010 DTC144ES RGB1 SELECT
Q8011 DTA144ES RGB1 SELECT
Q8012 DTC144ES RGB2 SELECT
Q8013 DTA144ES RGB2 SELECT
Q8014 DTC144ES VIDEO SELECT
Q8015 2SC1740S VIDEO SEL BUFFER
Q8016 2SC1740S SYNC ON GREEN SIGNAL BUFFER
12V(BACK UP)
IC8101 uPD74HC221 CLAMP PULSE CONTROL
Q8101 2SC1740S CLAMP CTL BUFFER
Q8102 2SC1740S CLAMP PULSE BUFFER
Q8103 DTC144ES CLAMP SW
12V(SET UP)
CLAMP CTL
CLAMP SELECT
CLAMP PULSE
RED SIGNAL
GREEN SIGNAL
BULE SIGNAL
S12V 9-2-1B
RED 9-2-1B
GREEN 9-2-1C
BULE 9-2-1C
VR8702 10K-B
Q8705 2SC1740S V.BLK BUFFER
Q8701 DTC144ES
Q8702 DTC144ES
IC8701 uPC1377C VIDEO SYNC PROCESS
CONTR 9-2-1D
CONTG 9-2-1D
CONTB 9-2-1D
CLAMP 9-2-1D
TPGND1
VR8701 3K-B
TP8701 H-SYNC FREERUN (VIDEO)
Q8703 DTC144ES AFC-SW
PAL SEL
IC8702 uPD4538BC VIDEO H-SYNC SHAPE
Q8704 2SC1740S H.PULSE BUFFER
B GAIN(SUB)
G GAIN(SUB)
R GAIN(SUB)
BRIGHT CTL
VIDEO BAND SW
RGB1 SELECT
RGB2 SELECT
12V(BACK UP)
BRIGHT 9-2-1E
BAND 9-2-1E
RGB1S 9-2-1E
RGB2S 9-2-1E
B12V 9-2-1E
PAL 9-2-1E
Y SIGNAL(VIDEO)
H-SYNC(VIDEO) [NEG]
V-SYNC(VIDEO) [POS]
TP8702 V-SYNC FREERUN (VIDEO)
CLAMP CTL
CLAMP SEL
TO RGB I/O PWB RB
TO RGB I/O PWB RC

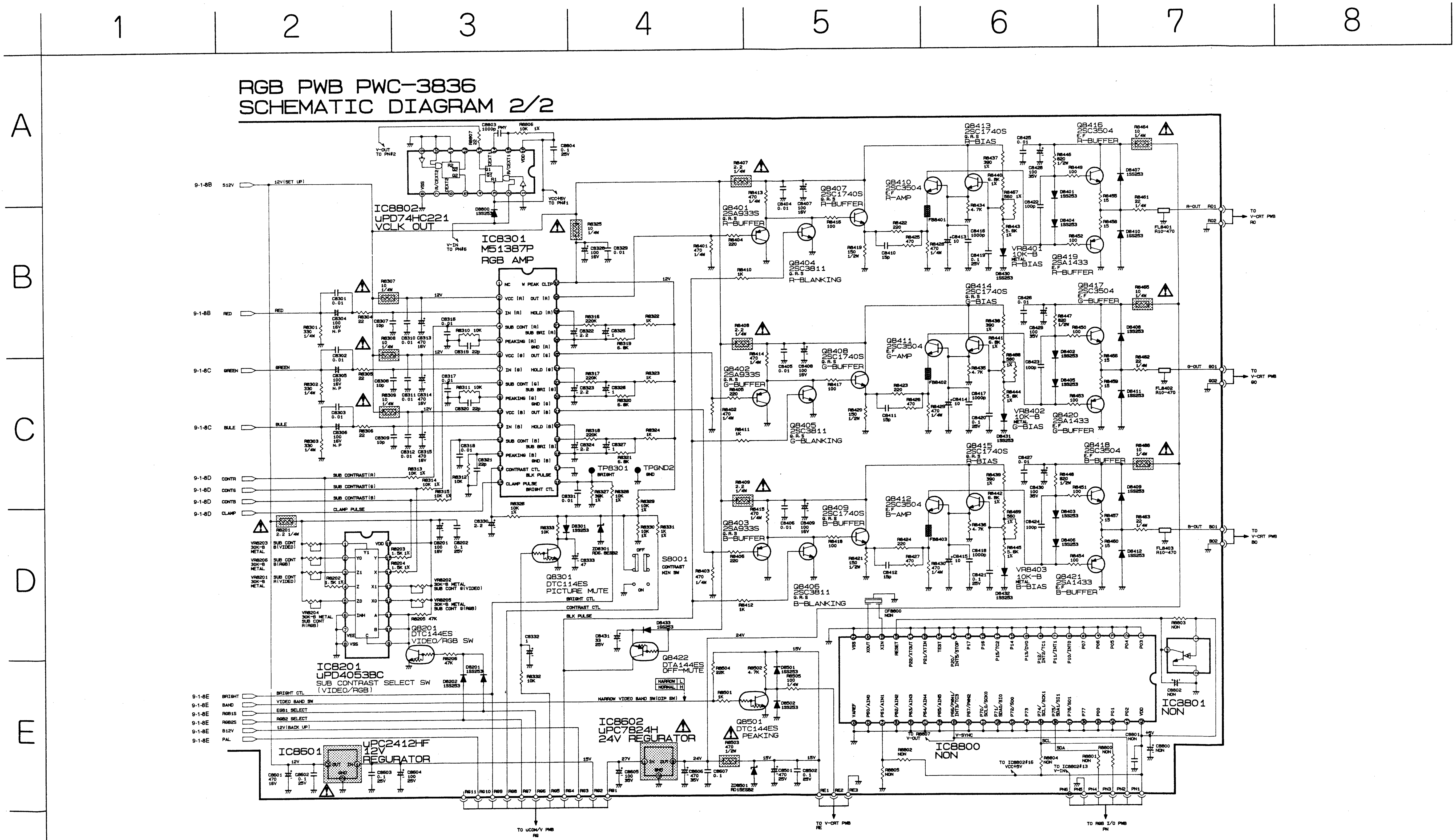
How to read : □-□-□□


Address
Page

(EX) 1-1-1A


1
2
3
A
B
(Address)
1-1
Page

RGB PWB PWC-3836
SCHEMATIC DIAGRAM 2/2

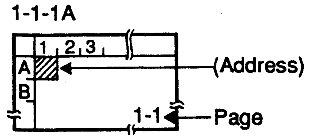

1
2
3
4
5
6
7
8
A
B
C
D
E
IC8802
uPD74HC221
VCLK OUT
IC8301
M51387P
RGB AMP
TP8301
BRIGHT
TPGND2
GND
Q8301
DTC114ES
PICTURE MUTE
S8001
CONTRAST
MIN SW
Q8201
DTC144ES
VIDEO/RGB SW
IC8201
uPD4053BC
SUB CONTRAST SELECT SW
(VIDEO/RGB)
Q8422
DTA144ES
OFF-MUTE
IC8602
uPC7824H
24V REGURATOR
IC8601
uPC2412HF
12V
REGURATOR
Q8501
DTC144ES
PEAKING
IC8800
NON
IC8801
NON
Q8401
2SA933S
R-BUFFER
Q8402
2SA933S
G-BUFFER
Q8403
2SA933S
B-BUFFER
Q8404
2SC3811
R-BLANKING
Q8405
2SC3811
G-BLANKING
Q8406
2SC3811
B-BLANKING
Q8407
2SC1740S
R-BUFFER
Q8408
2SC1740S
G-BUFFER
Q8409
2SC1740S
B-BUFFER
Q8410
2SC3504
R-AMP
Q8411
2SC3504
G-AMP
Q8412
2SC3504
B-AMP
Q8413
2SC1740S
R-BIAS
Q8414
2SC1740S
G-BIAS
Q8415
2SC1740S
B-BIAS
Q8416
2SC3504
R-BUFFER
Q8417
2SC3504
G-BUFFER
Q8418
2SC3504
B-BUFFER
Q8419
2SA1433
R-BUFFER
Q8420
2SA1433
G-BUFFER
Q8421
2SA1433
B-BUFFER
VR8401
10K-B
R-BIAS
VR8402
10K-B
G-BIAS
VR8403
10K-B
B-BIAS
R-OUT
G-OUT
B-OUT
TO V-CRT PWB
TO uCOM/Y PWB
TO V-CRT PWB
TO RGB I/O PWB
9-1-8B
9-1-8C
9-1-8D
9-1-8E
RED
GREEN
BULE
CONTR
CLAMP
BRIGHT
BAND
RGB1S
RGB2S
B12V
PAL
12V(SET UP)
12V(BACK UP)
NARROW VIDEO BAND SW(DIP SW)
NARROW
NORMAL

How to read : □-□-□□

Page

Address

(EX) 1-1-1A

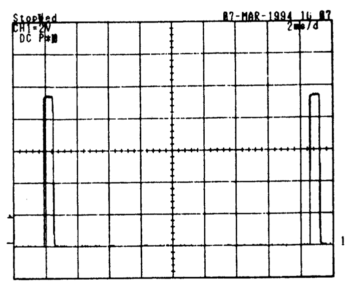

1
2
3
A
B
(Address)
1-1
Page

RGB PWB VOLTAGE

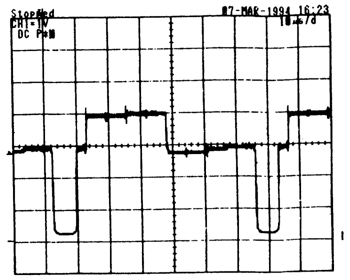
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC8101		
#1	0	—
#2	0.1	—
#3, #10, #16	5.3	—
#4	5.0	—
#5	0	—
#6	0	—
#7	5.2	—
#8	0	—
#9, #13	0.2	—
#11	4.4	CLAMP CTL "VARI" Mode
	0.6	CLAMP "FIX" Mode
#12	5.2	—
#14	0	—
#15	4.5	—
IC8201		
#1	5.3	VIDEO Mode
#2	11.9	ditto
#3	5.5	ditto
#4	5.5	ditto
#5	11.9	ditto
#12	11.9	ditto
#13	5.4	ditto
#14	5.4	ditto
#15	5.3	ditto
#9, #10, #11	11.9	VIDEO Mode
	0	RGB Mode
#6, #7, #8	0	—
#16	11.9	—
IC8301		
#1	0	Input Video Signal
#2, #6, #10	11.7	Input Video Signal
#3, #7, #11	2.7	Input Video Signal
#4, #8, #12	4.5	Input Video Signal
#5, #9, #13	2.7	Input Video Signal
#14	5.2~5.8	CONTRAST Control
#15	0	—
#16	3.0~3.5	BRIGHT Control
#17, #18, #22, #26	0	Input Video Signal
#19, #23, #27	4.0	Input Video Signal
#20, #24, #28	4.5	Input Video Signal
#21, #25,#29	3.0	Input Video Signal
#30	11.9	Input Video Signal
IC8601		
#1	14.8	IN
#2	0	—
#3	12.0	OUT
IC8602		
#1	28.1	IN
#2	0	—
#3	24.0	OUT
IC8701		
#1	4.8	—
IC8701		
#2	10.8	—
#3	3.5	—
#4	0	—
#5	6.2	—
#6, #8, #9	0	—
#7	5.9	—
#10	4.5	—
#11	11.9	—
#12	0.4	—
#13	0.2	—
#14, #15	0	—
#16	0	—
#17	3.9	—
#18	6.9	—
#19	4.7	—
#20	1.7	—
#21	11.8	—
#22	4.6	—
IC8702		
#1	0	—
#2	10.5	—
#3, #5, #13, #16	11.9	—
#4	4.5	—
#6, #11	1.4	—
#7	10.4	—
#8, #12	0	—
#9	11.1	—
#10	0.6	—
#14	11.3	—
#15	0	—
Q8001, (E)	2.9	RGB 1 Mode
Q8002, (C)	11.9	—
Q8003 (B)	3.6	RGB 1 mode
Q8004, (E)	2.9	RGB 2 Mode
Q8005, (C)	11.9	—
Q8006 (B)	3.6	RGB 2 Mode
Q8007, (E)	2.9	VIDEO 1, 2 Mode
Q8008, (C)	11.9	—
Q8009 (B)	3.5	VIDEO 1, 2 Mode
Q8010		
(E)	0	—
(C)	0	RGB 1 Mode
	11.8	Other Mode
(B)	2.6	RGB 1 Mode
	0	Other Mode
Q8011		
(E)	11.9	—
(C)	11.8	RGB 1 Mode
	0	Other Mode
(B)	0	RGB 1 Mode
	11.8	Other Mode
Q8012		
(E)	0	—
(C)	0	RGB 2 Mode
	11.8	Other Mode
(B)	2.6	RGB 2 Mode
	0	Other Mode
Q8013		
(E)	11.9	—
(C)	11.8	RGB 2 Mode
	0	Other Mode
(B)	0	RGB 2 Mode
	11.8	Other Mode
Q8014		
(E)	0	—
(C)	5.4	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
(B)	0	VIDEO 1, 2 Mode
	2.1	RGB 1, 2 Mode
Q8015		
(E)	4.8	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
(C)	11.9	—
(B)	5.4	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
Q8616		
(E)	1.6	—
(C)	11.9	—
(B)	2.2	—
Q8101		
(E)	3.8~9.2	CLAMP CTL Volume
(C)	11.9	—
(B)	2.1~9.9	CLAMP CTL Volume
Q8102		
(E)	0.1	—
(C)	5.3	—
(B)	0.2	—
Q8103		
(E)	0	—
(C)	0.1	CLAMP SELECT "FIX"
	0	CLAMP SELECT "VARI"
(B)	0.6	CLAMP SELECT "FIX"
	4.5	CLAMP SELECT "VARI"
Q8201		
(E)	0	—
(C)	11.9	VIDEO 1, 2 Mode
	0	RGB 1, 2 Mode
(B)	0	VIDEO 1, 2 Mode
	3.1	RGB 1, 2 Mode
Q8301		
(E0	0	—
(C)	6.4	—
(B)	0	—
Q8401, (E)	3.3	Input Video Signal
Q8402, (C)	0	—
Q8403 (B)	3.0	Input Video Signal
Q8404, (E)	0	—
Q8405, (C)	3.3	Input Video Signal
Q8406 (B)	0.1	—
Q8407, (E)	2.9	Input Video Signal
Q8408, (C)	11.9	—
Q8409 (B)	3.3	Input Video Signal
Q8410, (E)	4.1	—
Q8411, (C)	10.8	Input Video Signal
Q8412 (B)	4.8	—
Q8413, (E)	4.8	—
Q8414, (C)	11.9	—
Q8415 B()	5.4	—
Q8416, (E)	11.5	Input Video Signal
Q8417, (C)	23.7	—
Q8418 (B)	12.2	Input Video Signal
Q8419, (E)	11.4	Input Video Signal
Q8420, (C)	0	—
Q8421 (B)	10.8	Input Video Signal
Q8422		
(E)	11.9	—
(C)	0.3	—
(B)	11.9	—
Q8501		
(E)	0	—
(C)	0	VIDEO BAND SW "NORMAL"
	6.6	VIDEO BAND SW "NARROW"
(B)	10.1	VIDEO BAND SW "NORMAL"
	0	VIDEO BAND SW "NARROW"
Q8701		
(E)	0	—
(C)	0	NTSC, M-NTSC Mode
	3.8	PAL Mode
(B)	6.3	NTSC, M-NTSC Mode
	0	PAL Mode
Q8702		
(E)	0	—
(C)	6.3	NTSC, M-NTSC Mode
	0	PAL Mode
(B)	0	NTSC, M-NTSC Mode
	4.6	PAL Mode
Q8703		
(E)	0	—
(C)	0	—
(B)	0.4	—
Q8704		
(E)	0.7	—
(C)	11.9	—
(B)	0.6	—
Q8705		
(E)	0.3	—
(C)	11.8	—
(B)	0.4	—
CONNECTOR "RA"		
All pins	0	No Input RGB1, 2 Signal
CONNECTOR "RV"		
#1	4.0	—
#3	4.0	—

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "RV"		
#5	4.0	—
#7	3.6	—
#8	0.7	—
#9	0.3	—
#2, #4, #6, #10	0	—
CONNECTOR "RB"		
#1	12.0	—
#2	0.3	—
#3	6.0	RGB 1 Mode
	0	Other Mode
#4	6.0	RGB 2 Mode
	0	Other Mode
#6	1.7	—
#8	11.1	—
#10	0.4	—
#5, #7, #9, #11	0	—
CONNECTOR "RC"		
#1	4.3	CLAMP SELECT "VARI" Mode
	0	CLAMP SELECT "FIX" Mode
#2	2.0~10.0	CLAMP CTL Volume
#3	3.0~5.1	SUB BRIGHT Volume
#4	4.0~5.3	R GAIN Volume
#5	4.2~5.2	G GAIN Volume
#6	4.0~5.3	B GAIN Volume
#7	10.0	VIDEO BAND SW "NORMAL" Mode
	0	VIDEO BAND SW "NARROW" Mode
#8	0	—
CONNECTOR "RG"		
#1	28.2	—
#2	14.8	—
#3	12.1	—
#4	0.3	—
#5	0	PICTURE MUTE OFF
#6	6.0	RGB 1 Mode
	0	Other Mode
#7	6.0	RGB 2 Mode
	0	Other Mode
#8	4.2~6.9	CONTRAST Control
#9	3.8~4.4	BRIGHT Control (by Remote)
#10	0	NTSC, M-NTSC Mode
	4.6	PAL Mode
#11	0	—
CONNECTOR "RE"		
#1	14.6	—
#2	0	VIDEO BAND "NORMAL" Mode
	6.4	VIDEO BAND "NARROW" Mode
#3	0	—
CONNECTOR "RO", #1	11.2	Input Vlideo Signal
"GO", "BO" #2	0	—

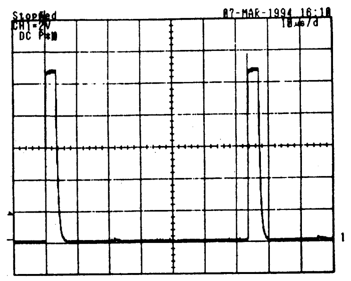
RGB PWB WAVEFORM



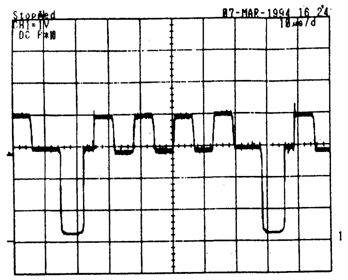
W1



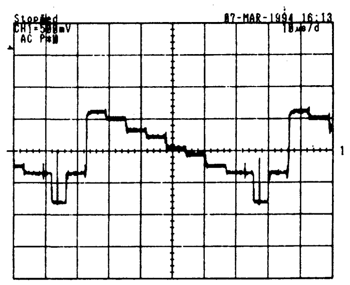
W6



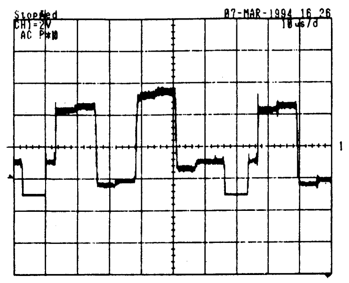
W2



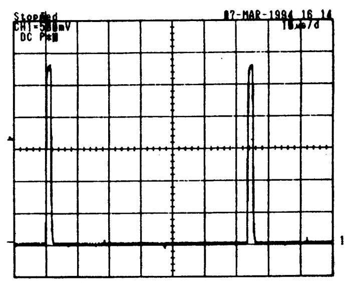
W7



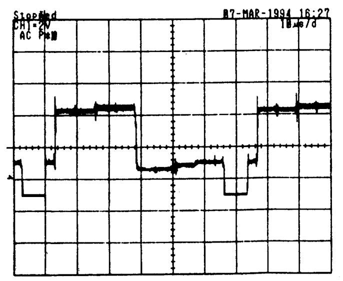
W3



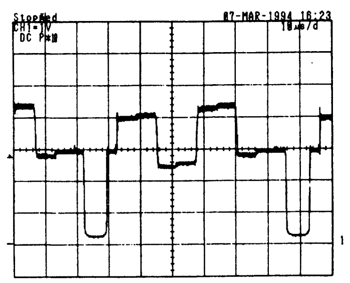
W8



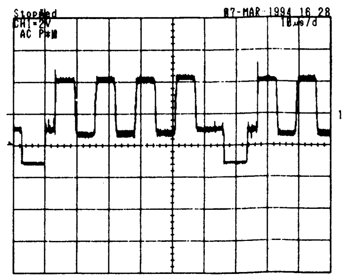
W4



W9

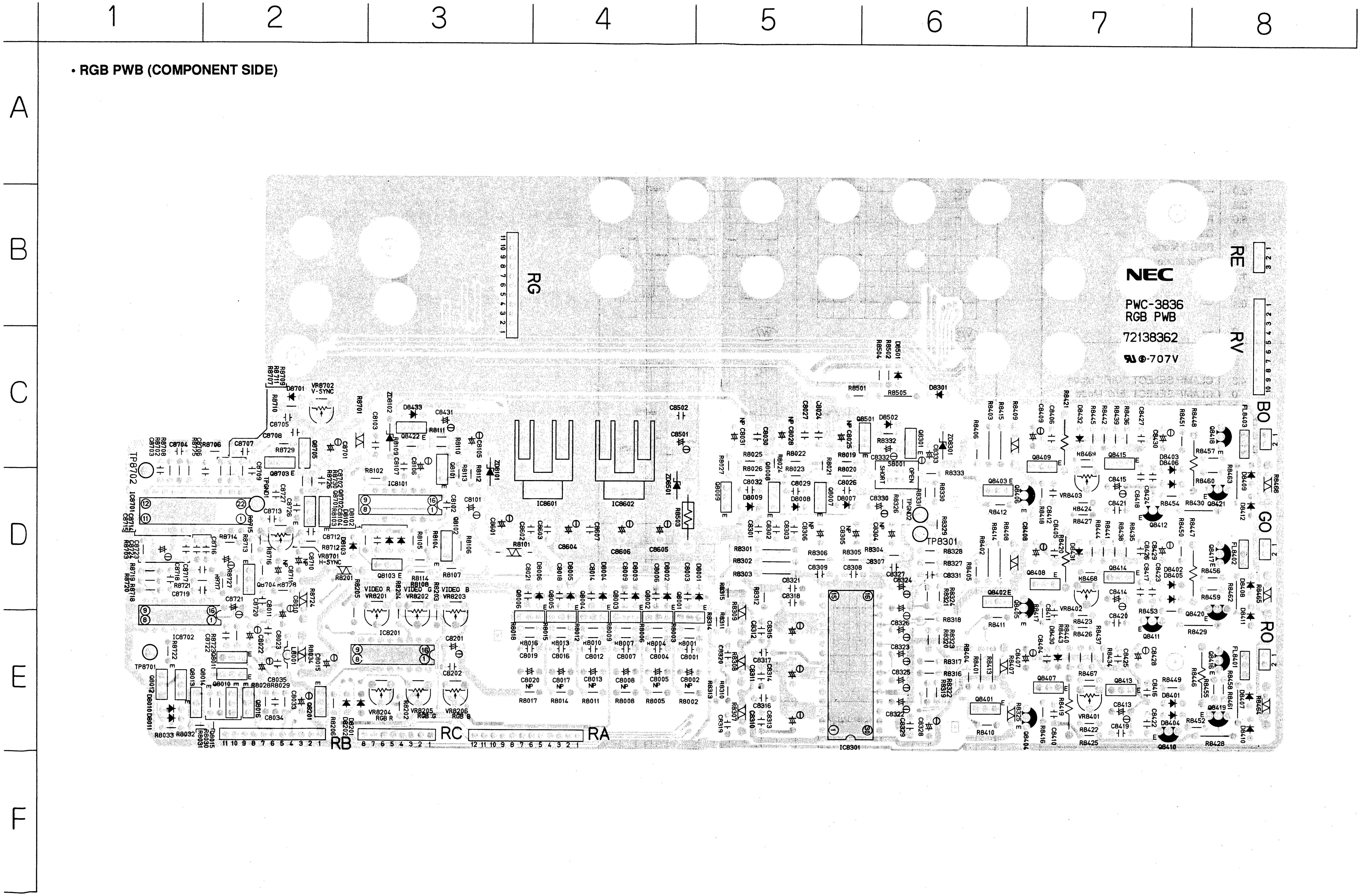


W5

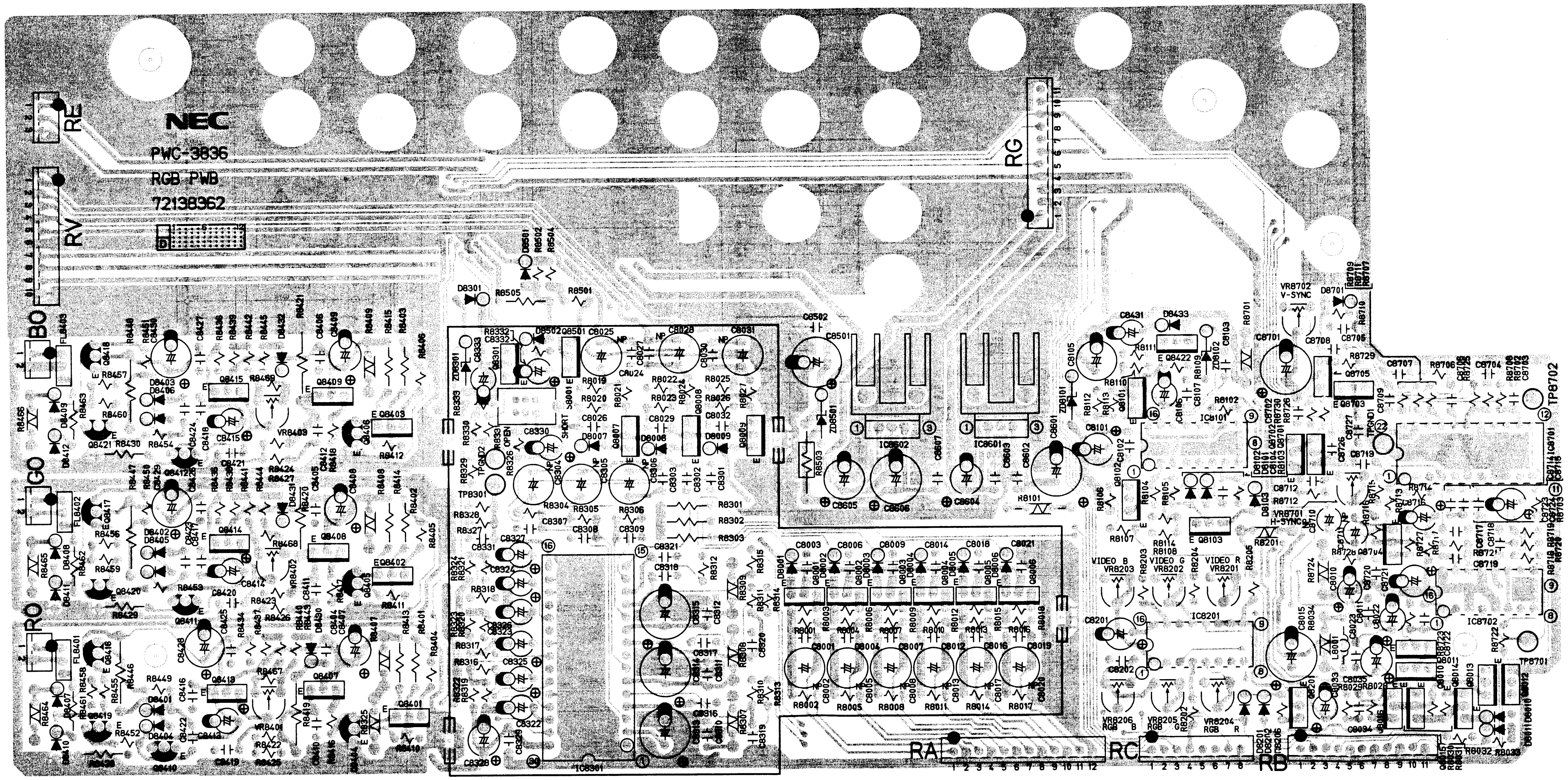


W10

• RGB PWB (COMPONENT SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
PWC-3836
RGB PWB
72138362
-707V
RG
RE
RV
BO
GO
RO
RA
RB
RC
IC8101
IC8201
IC8301
IC8601
IC8602
IC8701
IC8702
VR8702 V-SYNC
VR8701 H-SYNC
VIDEO R VR8201
VIDEO G VR8202
VIDEO B VR8203
VR8204 RGB R
VR8205 RGB G
VR8206 RGB B
TP8701
TP8702
TP8301
SHORT
OPEN
S8001

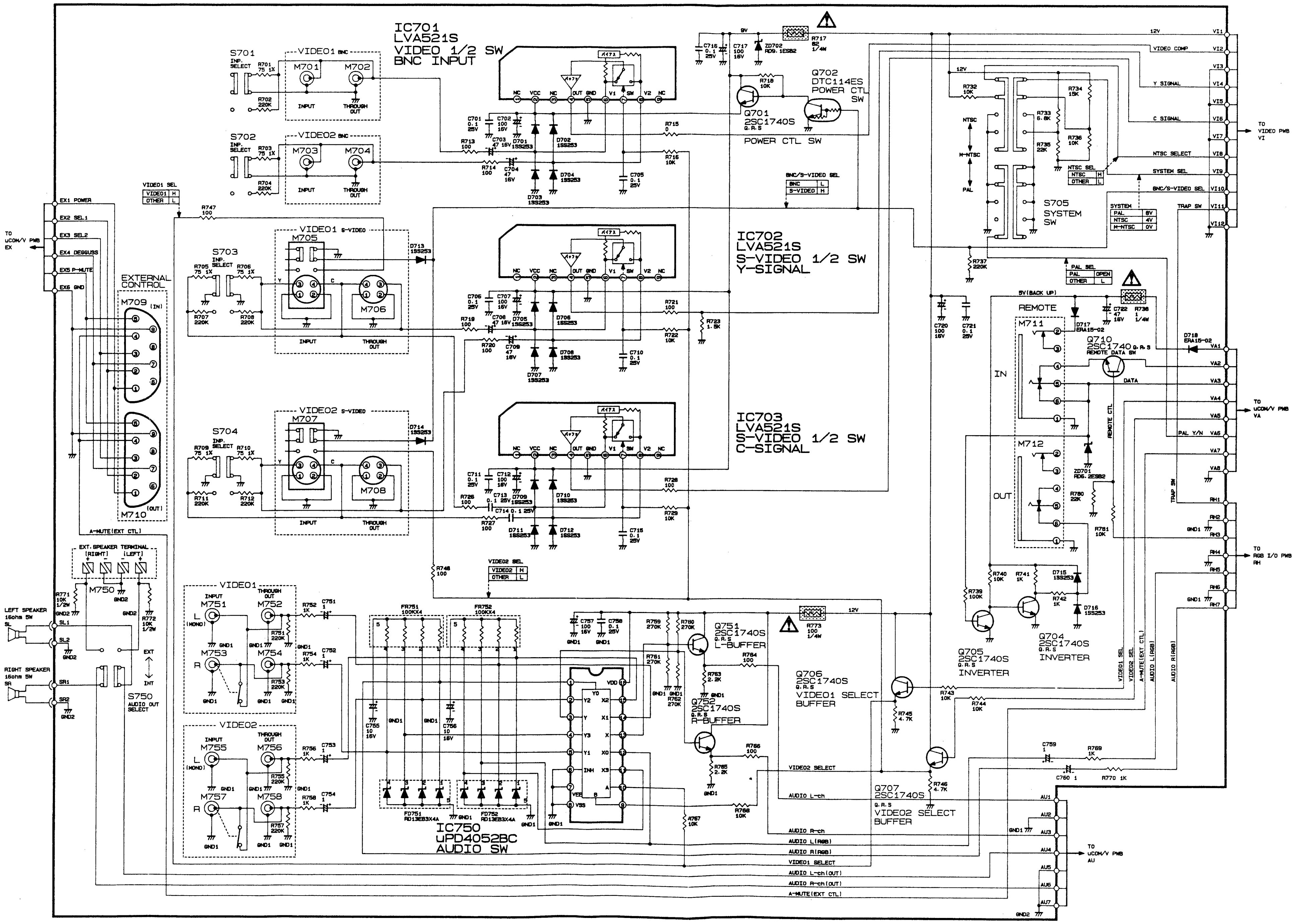
• RGB PWB (SOLDER SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
PWC-3836
RGB PWB
72138362
RE
RV
RG
BO
GO
RO
RA
RC
RB
IC8301
IC8201
IC8702
IC6501
IC6502
IC8101
TP8701
TP8702
VIDEO B
VIDEO G
VIDEO R
VR8203
VR8202
VR8201
VR8702
V-SYNC
VR8701
H-SYNC

1 2 3 4 5 6 7 8

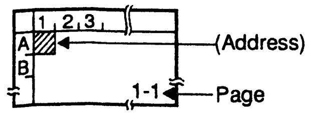
A B C D E F

VIDEO I/O PWB PWC-3837
SCHEMATIC DIAGRAM


IC701
LVA521S
VIDEO 1/2 SW
BNC INPUT
S701
VIDEO1 BNC
M701
M702
INPUT
THROUGH OUT
S702
VIDEO2 BNC
M703
M704
Q702
DTC114ES
POWER CTL SW
Q701
2SC1740S
POWER CTL SW
R717
ZD702
IC702
LVA521S
S-VIDEO 1/2 SW
Y-SIGNAL
IC703
LVA521S
S-VIDEO 1/2 SW
C-SIGNAL
S703
VIDEO1 S-VIDEO
M705
M706
S704
VIDEO2 S-VIDEO
M707
M708
EXTERNAL CONTROL
M709
(IN)
M710
(OUT)
TO uCOM/V PWB EX
EX1 POWER
EX2 SEL1
EX3 SEL2
EX4 DEGAUSS
EX5 P-MUTE
EX6 GND
VIDEO1 SEL
VIDEO1 H
OTHER L
VIDEO2 SEL
VIDEO2 H
OTHER L
BNC/S-VIDEO SEL
BNC L
S-VIDEO H
S705
SYSTEM SW
SYSTEM
PAL 8V
NTSC 4V
M-NTSC 0V
NTSC
M-NTSC
PAL
PAL SEL
PAL OPEN
OTHER L
5V(BACK UP)
REMOTE
M711
IN
M712
OUT
Q710
2SC1740
REMOTE DATA SW
DATA
ZD701
D717
D718
Q705
2SC1740S
INVERTER
Q704
2SC1740S
INVERTER
12V
VIDEO COMP
Y SIGNAL
C SIGNAL
NTSC SELECT
SYSTEM SEL
BNC/S-VIDEO SEL
TRAP SW
VI1 VI2 VI3 VI4 VI5 VI6 VI7 VI8 VI9 VI10 VI11 VI12
TO VIDEO PWB VI
VA1 VA2 VA3 VA4 VA5 VA6 VA7 VA8
TO uCOM/V PWB VA
PAL Y/N
REMOTE CTL
RH1 RH2 RH3 RH4 RH5 RH6 RH7
TO RGB I/O PWB RH
GND1
GND2
A-MUTE(EXT CTL)
EXT.SPEAKER TERMINAL
(RIGHT) (LEFT)
M750
LEFT SPEAKER 16ohm 5W
RIGHT SPEAKER 16ohm 5W
SL1 SL2 SR1 SR2
S750
AUDIO OUT SELECT
EXT
INT
VIDEO1
INPUT
THROUGH OUT
M751
M752
M753
M754
L (MONO)
R
VIDEO2
M755
M756
M757
M758
FR751 100KX4
FR752 100KX4
FD751 RD13EB3X4A
FD752 RD13EB3X4A
IC750
uPD4052BC
AUDIO SW
Q751
2SC1740S
L-BUFFER
Q752
2SC1740S
R-BUFFER
Q706
2SC1740S
VIDEO1 SELECT BUFFER
Q707
2SC1740S
VIDEO2 SELECT BUFFER
VIDEO2 SELECT
AUDIO L-ch
AUDIO R-ch
AUDIO L(RGB)
AUDIO R(RGB)
VIDEO1 SELECT
AUDIO L-ch(OUT)
AUDIO R-ch(OUT)
A-MUTE(EXT CTL)
AU1 AU2 AU3 AU4 AU5 AU6 AU7
TO uCOM/V PWB AU

How to read : □-□-□□
Address
Page

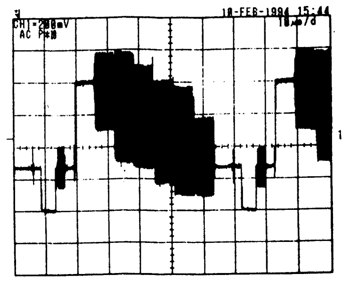
(EX) 1-1-1A


1 2 3
A
B
(Address)
1-1
Page

VIDEO I/O PWB VOLTAGE

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC701		
#1	0	—
#2	7.8	—
#3	0	—
#4	3.3	—
#5	0	—
#6	4.0	—
#7	6.5	VIDEO 2 Mode
#8	4.1	—
#9	0	—
IC702		
#1	0	—
#2	8.8	—
#3	0	—
#4	3.8	—
#5	0	—
#6	4.6	—
#7	6.4	VIDEO 2 Mode
#8	4.6	—
#9	0	—
IC703		
#1	0	—
#2	8.8	—
#3	0	—
#4	3.8	—
#5	0	—
#6	4.6	—
#7	6.4	VIDEO 2 Mode
#8	4.6	—
#9	0	—
IC750		
#1	4.6	—
#2	4.6	—
#3	4.7	—
#4	4.6	—
#5	4.7	—
#6, #7, #8	0	—
#9	10.9	VIDEO 2 Mode
#10	11.0	VIDEO 1 Mode
#11	4.7	—
#12	4.7	—
#13	4.7	—
#14	4.7	—
#15	4.7	—
#16	11.4	—
Q701		
(E)	7.8	No Input S-VIDEO
(C)	8.8	—
(B)	8.5	No Input S-VIDEO
Q702		
(E)	0	—
(C)	8.5	No Input S-VIDEO
(B)	0	No Input S-VIDEO
Q704		
(E)	0	—
(C)	5.3	—
(B)	0	—
Q705		
(E)	0	—
(C)	0	—
(B)	0.6	—
Q706		
(E)	11.0	VIDEO 1 Mode
(C)	11.8	—
(B)	11.0	VIDEO 1 Mode
Q707		
(E)	10.9	VIDEO 2 Mode
(C)	11.8	—
(B)	11.5	VIDEO 2 Mode
Q751		
(E)	4.1	—
(C)	11.4	—
(B)	4.7	—
Q752		
(E)	4.1	—
(C)	11.4	—
(B)	4.7	—
CONNECTOR "VI"		
#1	11.8	—
#2	3.3	—
#4	3.6	—
#6	3.8	—
#8	6.6	NTSC Mode
#9	3.8	NTSC Mode
	0	M-NTSC Mode
#10	0	No Input S-VIDEO
#11	12.0	TRAP Switch "ON"
#3, #5, #7, #12	0	—
CONNECTOR "RH"		
#1	12.0	TRAP Switch "ON"
#2	—	—
#3	12.0	Remote Control SW "ON"
#4, #6	0	—
#5, #7	0	No Input "RGB AUDIO"
CONNECTOR "VA"		
#1	5.9	—
#2	4.7	—
#3	4.7	—
#4	11.8	VIDEO 1 Mode
#5	11.7	VIDEO 2 Mode
#6	4.7	PAL Mode
CONNECTOR "VA"		
#7	0	EXT CTL Mode "OFF"
#8	0	—
CONNECTOR "AU"		
#1	4.1	—
#3	4.1	—
#4, #6	0	—
#2, #5, #7	0	—
CONNECTOR "EX"		
#1	3.9	No Control EXTERNAL
#2	3.8	ditto
#3	3.9	ditto
#4	4.0	ditto
#5	3.9	ditto
#6	0	—
CONNECTOR "SL"		
#1	0	No Output SOUND
#2	0	—
CONNECTOR "SR"		
#1	0	No Output SOUND
#2	0	—

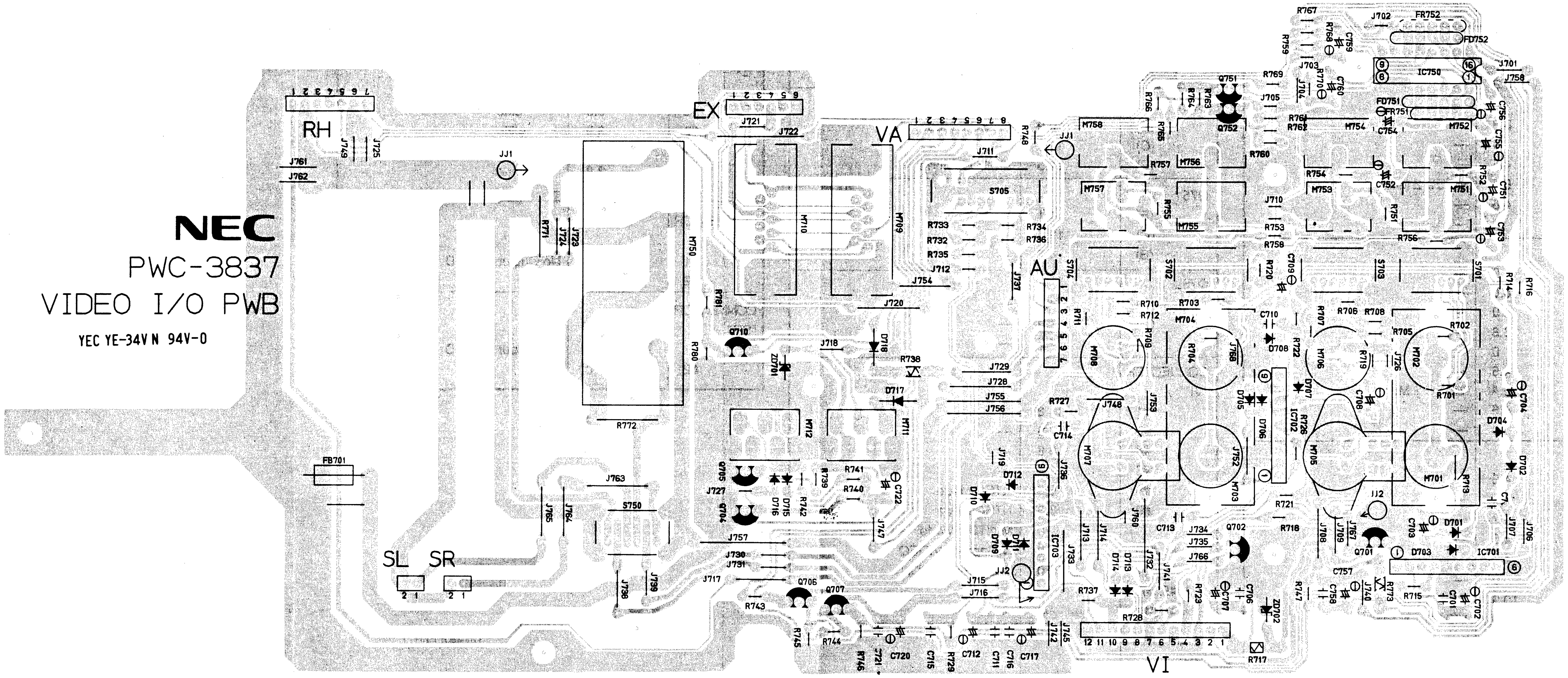
VIDEO I/O PWB WAVEFORM



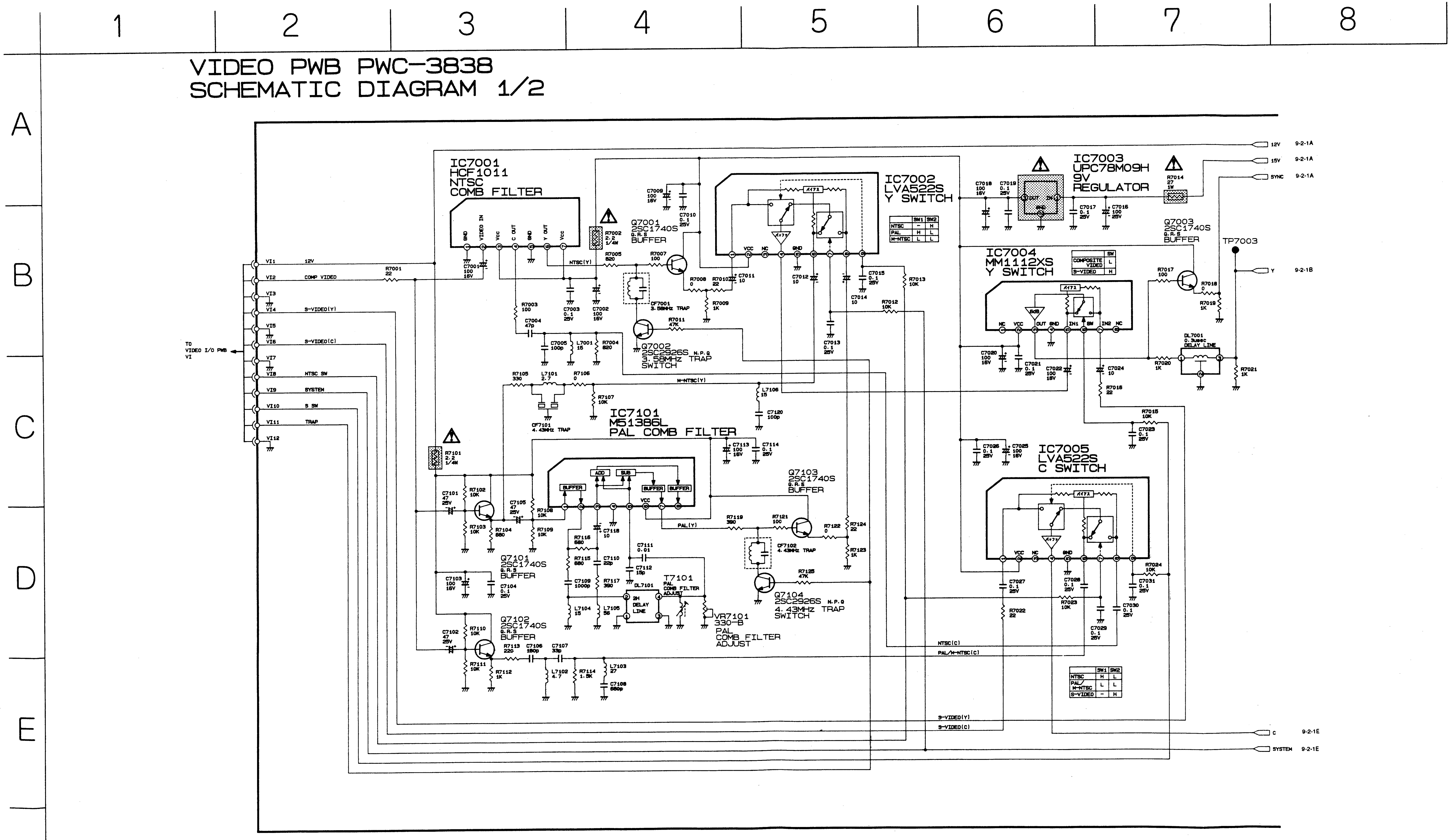
(W1)

1
2
3
4
5
6
7
8
A
B
C
D
E
F

• VIDEO I/O PWB (SOLDER SIDE)


NEC
PWC-3837
VIDEO I/O PWB
YEC YE-34V N 94V-0
RH
EX
VA
AU
SL
SR
VI
JJ1
JJ2
J1
J2
FB701
S750
S705
IC750
IC701
IC702
IC703
Q701
Q702
Q704
Q705
Q706
Q707
Q710
Q751
Q752
R772
R780
R781
M701
M702
M703
M705
M706
M707
M708
M709
M710
M711
M712
M750
M751
M752
M753
M754
M755
M756
M757
M758
S701
S702
S703
S704
FR752
FD751
FD752

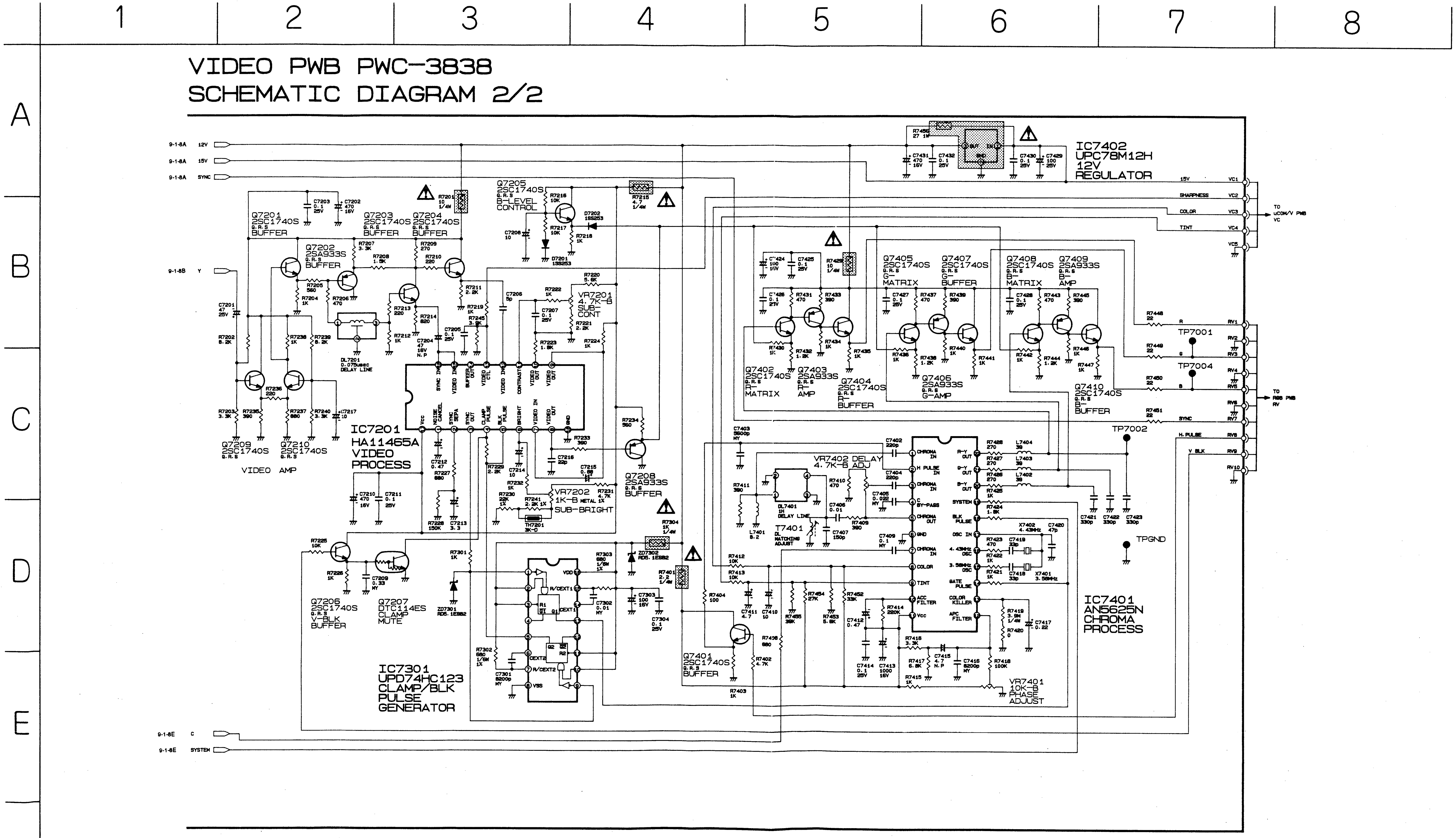
VIDEO PWB PWC-3838
SCHEMATIC DIAGRAM 1/2


1
2
3
4
5
6
7
8
A
B
C
D
E
IC7001
HCF1011
NTSC
COMB FILTER
IC7002
LVA522S
Y SWITCH
IC7003
UPC78M09H
9V
REGULATOR
IC7004
MM1112XS
Y SWITCH
IC7005
LVA522S
C SWITCH
IC7101
M51386L
PAL COMB FILTER
Q7001
2SC1740S
BUFFER
Q7002
2SC2926S
3.58MHz TRAP
SWITCH
Q7003
2SC1740S
BUFFER
Q7101
2SC1740S
BUFFER
Q7102
2SC1740S
BUFFER
Q7103
2SC1740S
BUFFER
Q7104
2SC2926S
4.43MHz TRAP
SWITCH
T7101
PAL
COMB FILTER
ADJUST
VR7101
330-B
PAL
COMB FILTER
ADJUST
DL7101
2H
DELAY
LINE
DL7001
0.3usec
DELAY LINE
CF7001
3.58MHz TRAP
CF7101
4.43MHz TRAP
CF7102
4.43MHz TRAP
TP7003
TO
VIDEO I/O PWB
VI
VI1
VI2
VI3
VI4
VI5
VI6
VI7
VI8
VI9
VI10
VI11
VI12
12V
COMP VIDEO
S-VIDEO(Y)
S-VIDEO(C)
NTSC SW
SYSTEM
S SW
TRAP
NTSC(Y)
N-NTSC(Y)
PAL(Y)
NTSC(C)
PAL/N-NTSC(C)
S-VIDEO(Y)
S-VIDEO(C)
12V 9-2-1A
15V 9-2-1A
SYNC 9-2-1A
Y 9-2-1B
C 9-2-1E
SYSTEM 9-2-1E
SW1 SW2
NTSC - H
PAL H L
N-NTSC L L
SW
COMPOSITE VIDEO L
S-VIDEO H
SW1 SW2
NTSC H L
PAL/N-NTSC L L
S-VIDEO - H

How to read : □–□–□□
Address
Page

(EX) 1-1-1A
(Address)
Page

VIDEO PWB PWC-3838
SCHEMATIC DIAGRAM 2/2

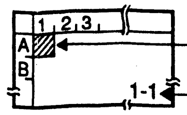

1
2
3
4
5
6
7
8
A
B
C
D
E
F
9-1-8A 12V
9-1-8A 15V
9-1-8A SYNC
9-1-8B Y
9-1-8E C
9-1-8E SYSTEM
Q7201 2SC1740S Q.R.S BUFFER
Q7202 2SA933S Q.R.S BUFFER
Q7203 2SC1740S Q.R.S BUFFER
Q7204 2SC1740S Q.R.S BUFFER
Q7205 2SC1740S Q.R.S B-LEVEL CONTROL
Q7206 2SC1740S Q.R.S V-BLK BUFFER
Q7207 DTC114ES CLAMP MUTE
Q7208 2SA933S Q.R.S BUFFER
Q7209 2SC1740S Q.R.S
Q7210 2SC1740S Q.R.S
VIDEO AMP
IC7201 HA11465A VIDEO PROCESS
DL7201 0.075µsec DELAY LINE
VR7201 4.7K-B SUB-CONT
VR7202 1K-B SUB-BRIGHT
TH7201
D7201 1SS253
D7202 1SS253
ZD7301 RD5.1ES82
ZD7302 RD5.1ES82
IC7301 UPD74HC123 CLAMP/BLK PULSE GENERATOR
IC7402 UPC78M12H 12V REGULATOR
Q7401 2SC1740S Q.R.S BUFFER
Q7402 2SC1740S Q.R.S R-MATRIX
Q7403 2SA933S Q.R.S R-AMP
Q7404 2SC1740S Q.R.S R-BUFFER
Q7405 2SC1740S Q.R.S G-MATRIX
Q7406 2SA933S Q.R.S G-AMP
Q7407 2SC1740S Q.R.S G-BUFFER
Q7408 2SC1740S Q.R.S B-MATRIX
Q7409 2SA933S Q.R.S B-AMP
Q7410 2SC1740S Q.R.S B-BUFFER
VR7402 DELAY 4.7K-B ADJ
DL7401 1H DELAY LINE
T7401 DL MATCHING ADJUST
L7401 8.2
X7401 3.58MHz
X7402 4.43MHz
VR7401 10K-B PHASE ADJUST
IC7401 AN5625N CHROMA PROCESS
TP7001
TP7002
TP7004
TPGND
15V VC1
SHARPNESS VC2
COLOR VC3
TINT VC4
VC5
TO uCOM/V PWB VC
R RV1
RV2
G RV3
RV4
B RV5
RV6
SYNC RV7
H.PULSE RV8
V BLK RV9
RV10
TO RGB PWB RV

How to read : □-□-□□

Address

Page

(EX) 1-1-1A



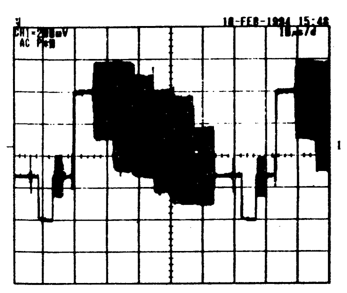
(Address)

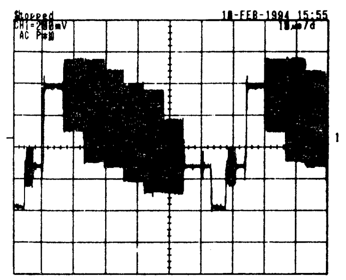
Page

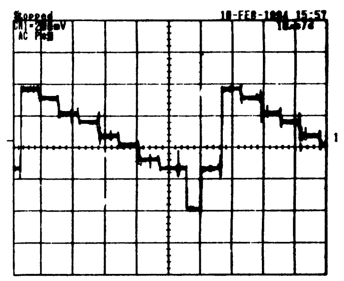
VIDEO PWB VOLTAGE

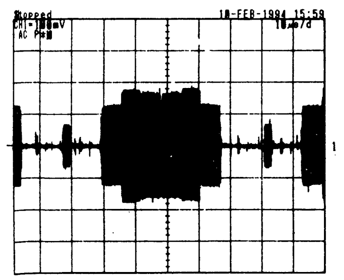
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC7001		
#1	0	—
#2	4.0	—
#3	8.8	—
#4	4.2	—
#5	0	—
#6	4.2	—
#7	8.8	—
IC7002		
#1	4.6	—
#2	8.9	—
#3	0	—
#4	3.9	—
#5	0	—
#6	4.7	—
#7	2.3	NTSC Mode
	0	M-NTSC Mode
	4.5	PAL Mode
#8	4.6	—
#9	3.9	NTSC Mode
	0	M-NTSC PAL Mode
IC7003		
#1	12.5	IN
#2	0	—
#3	8.9	OUT
IC7004		
#1	0	—
#2	8.9	—
#3	4.2	—
#4	0	—
#5	4.0	—
#6	0	No Input S-VIDEO
#7	4.0	—
#8	0	—
IC7005		
#1	4.7	—
#2	8.9	—
#3	0	—
#4	3.9	—
#5	0	—
#6	4.7	—
#7	4.0	NTSC Mode
#8	4.6	—
#9	0	No Input S-VIDEO
IC7101		
#1	5.9	—
#2	5.8	—
#3	4.0	—
#4	0	—
#5	1.0	—
#6	11.7	—
#7	6.5	—
#8	6.5	—
C7201		
#1	8.7	—
#2	7.9	—
#3	6.0	—
#4	0.3	—
IC7201		
#5	0.5	—
#6	9.5	—
#7	9.5	—
#8	6.4	—
#9	10.1	—
#10	2.7	—
#11	5.3	—
#12	3.3	—
#13	1.7~10	SHARPNESS Control
#14	6.7	—
#15, #16	3.5	—
#17	11.6	—
#18	0	—
IC7301		
#1	4.5	
#2, #3	5.1	—
#4	4.5	—
#5	0.5	—
#6	0	—
#7	4.7	—
#8	0	—
#9	4.5	—
#10, #11	5.1	—
#12	4.6	—
#13	0.6	—
#14	0	—
#15	4.6	—
#16	5.1	—
IC7401		
#1	2.7	—
#2	1.0	—
#3	2.7	—
#4	2.0	—
#5	8.3	—
#6	0	—
#7	1.3	—
#8	1.3~4.6	COLOR Control
#9	3.3~9.2	TINT Control
#10	10.4	—
#11	11.7	—
#12	8.3	—
#13	7.7	—
#14	0.5	—
#15	8.0	—
#16	11.6	—
#17	3.2	—
#18	0.4	—
#19	3.8	—
#20	7.1	—
#21	7.1	—
#22	7.1	—
IC7402		
#1	14.7	IN
#2	0	—
#3	11.8	OUT
Q7001		
(E)	3.5	—
(C)	8.9	—
(B)	4.2	—
Q7002		
(E)	0	—
(C)	0	—
(B)	0.7	TRAP Switch "ON"
Q7003		
(E)	3.6	—
(C)	8.9	—
(B)	4.2	—
Q7101		
(E)	5.0	—
(C)	11.7	—
(B)	5.7	—
Q7102		
(E)	5.1	—
(C)	11.7	—
(B)	5.8	—
Q7103		
(E)	5.8	—
(C)	11.7	—
(B)	6.5	—
Q7104		
(E)	0	—
(C)	0	—
(B)	0.7	TRAP Switch "ON"
Q7201		
(E)	7.0	—
(C)	11.4	—
(B)	7.7	—
Q7202		
(E)	5.7	—
(C)	0	—
(B)	5.0	—
Q7203		
(E)	2.8	—
(C)	9.8	—
(B)	3.4	—
Q7204		
(E)	9.1	—
(C)	11.4	—
(B)	9.8	—
Q7205		
(E)	5.9	—
(C)	11.6	—
(B)	6.1	—
Q7206		
(E)	0.4	—
(C)	11.6	—
(B)	0.3	—
Q7207		
(E)	0	—
(C)	0.3	—
(B)	0.4	—
Q7208		
(E)	6.5	—
(C)	0	—
(B)	6.4	—
Q7209		
(E)	2.7	—
(C)	11.4	—
(B)	3.3	—
Q7210		
(E)	2.6	—
(C)	7.7	—
(B)	3.3	—
Q7401		
(E)	1.1	—
(C)	11.7	—
(B)	0.6	—
Q7402, (E)	6.5	—
Q7405, (C)	8.9	—
Q7408 (B)	7.1	—
Q7403, (E)	9.5	—
Q7406, (C)	4.6	—
Q7409 (B)	8.9	—
Q7404, (E)	4.0	—
Q7407, (C)	11.4	—
Q7410 (B)	4.6	—
CONNECTOR "VI"		
#1	11.8	—
#2	3.3	—
#4	3.6	—
#6	3.8	—
#8	6.6	NTSC Mode
#9	3.8	NTSC Mode
	0	M-NTSC Mode
	7.5	PAL Mode
#10	0	No Input S-VIDEO
#11	12.0	TRAP Switch "ON"
#3, #5, #7, #12	0	—
CONNECTOR "VC"		
#1	14.7	—
#2	1.4~10.7	SHAPNESS Control
#3	0.4~10.7	COLOR Control
#4	1.0~10.7	TINT Control
#5	0	—
CONNECTOR "RV"		
#1	4.0	—
#3	4.0	—
#5	4.0	—
#7	3.6	—
#8	0.7	—
#9	0.3	—
#2, #4, #6, #10	0	—

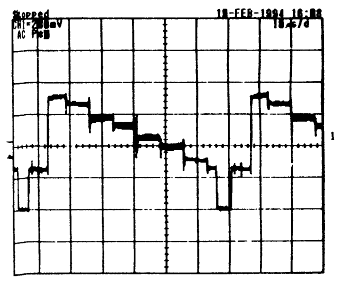
VIDEO PWB WAVEFORM

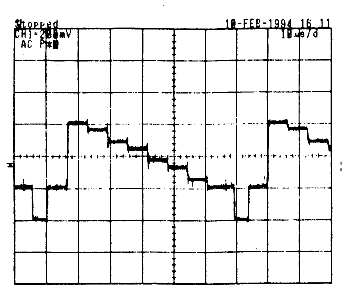

W1

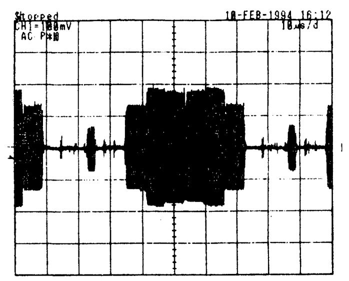

W2

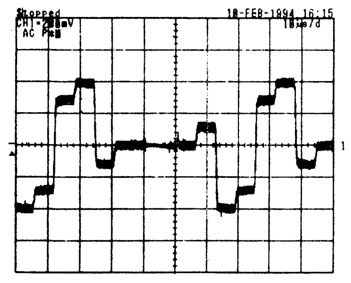

W3

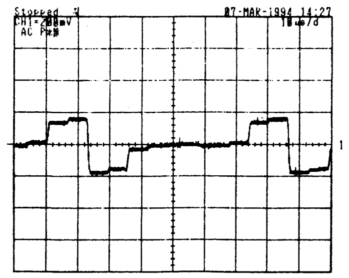

W4

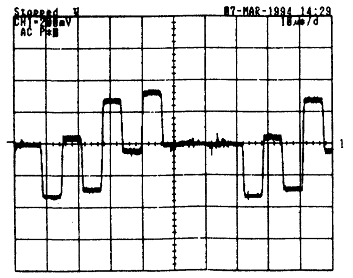

W5

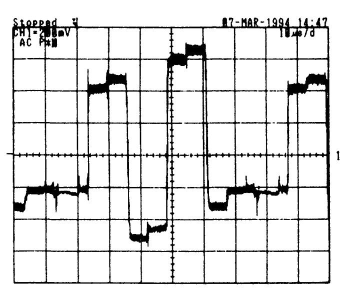

W6

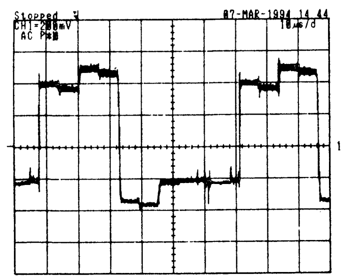

W7

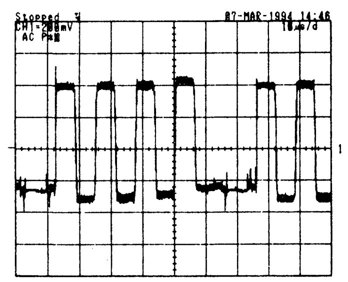

W8


W9

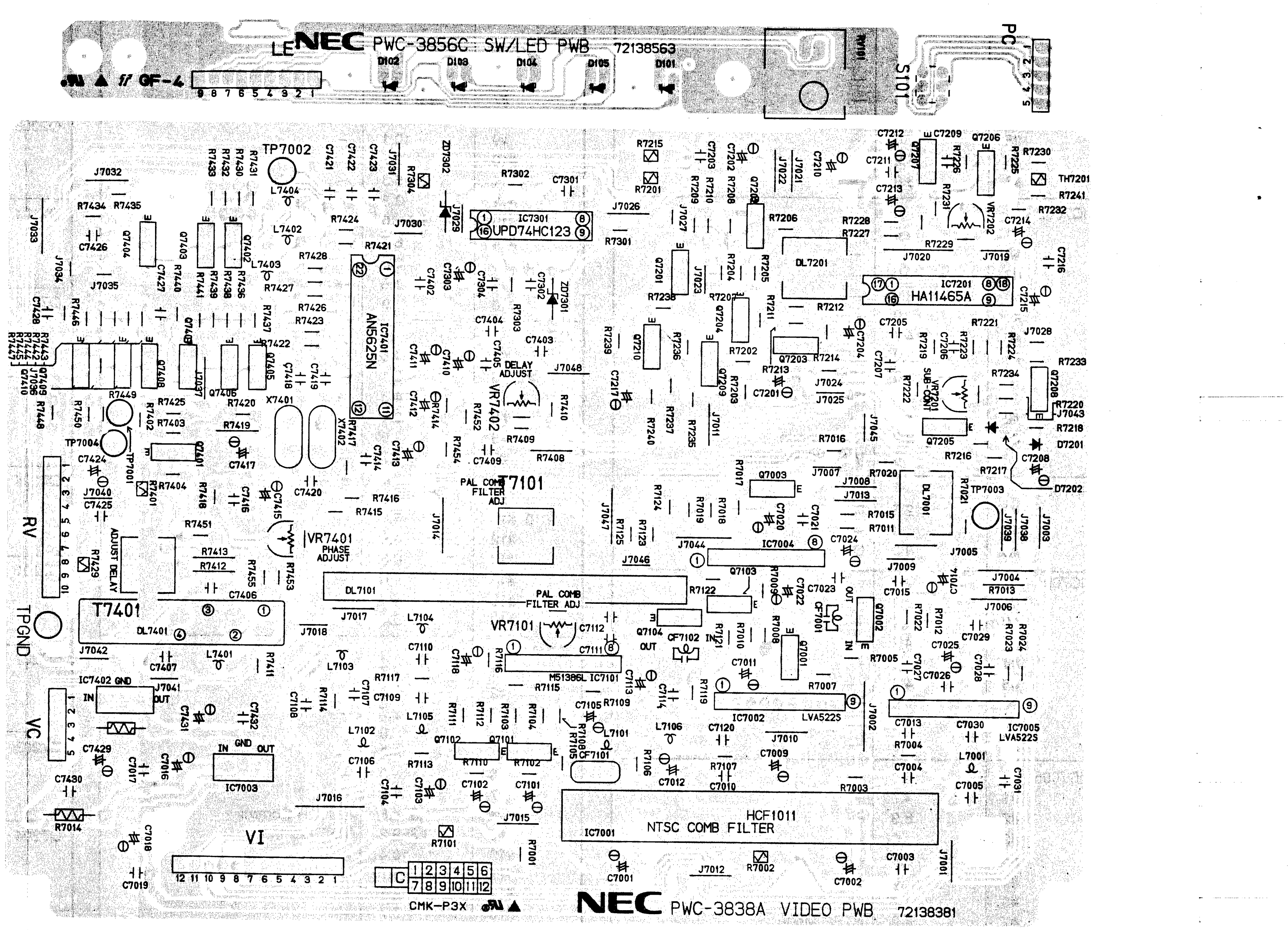

W10


W11


W12

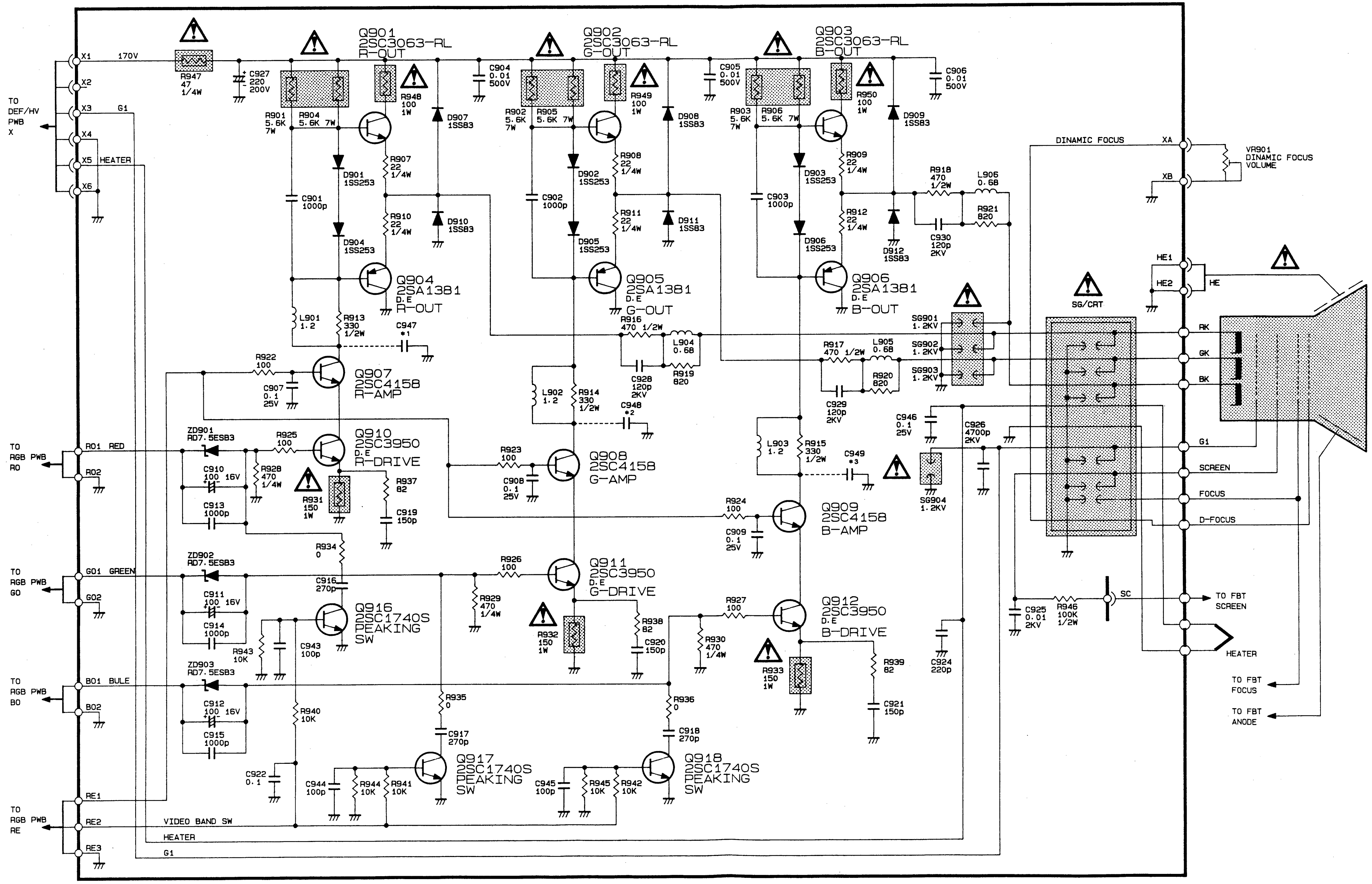

W13

• VIDEO PWB (SOLDER SIDE)


NEC PWC-3856C SW/LED PWB 72138563
GF-4
D102
D103
D104
D105
D101
S101
PC
IC7301 UPD74HC123
IC7401 AN5625N
IC7201 HA11465A
IC7101 M51386L
IC7002 LVA522S
IC7005 LVA522S
IC7001 HCF1011 NTSC COMB FILTER
DL7101 PAL COMB FILTER ADJ
DL7201
DL7001
DL7401
T7401
T7101 PAL COMB FILTER ADJ
VR7402 DELAY ADJUST
VR7401 PHASE ADJUST
VR7101
VR7201 SUB-CONT
TP7002
TP7003
TP7004
TP7001
RV
TPGND
VC
VI
IC7402
IC7003
CMK-P3X
NEC PWC-3838A VIDEO PWB 72138381

1 2 3 4 5 6 7 8

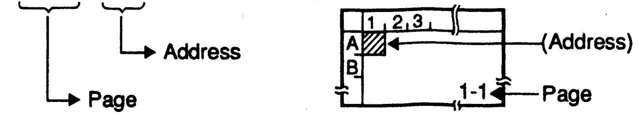
V-CRT PWB PWC-3834
SCHEMATIC DIAGRAM


A
B
C
D
E
TO DEF/HV PWB X
X1
170V
X2
X3
G1
X4
X5
HEATER
X6
R947 47 1/4W
C927 220 200V
Q901 2SC3063-RL R-OUT
R901 5.6K 7W
R904 5.6K 7W
R948 100 1W
D907 1SS83
D901 1SS253
R907 22 1/4W
C901 1000p
R910 22 1/4W
D910 1SS83
D904 1SS253
Q904 2SA1381 D.E R-OUT
L901 1.2
R913 330 1/2W
C947 *1
R922 100
Q907 2SC4158 R-AMP
C907 0.1 25V
C904 0.01 500V
Q902 2SC3063-RL G-OUT
R902 5.6K 7W
R905 5.6K 7W
R949 100 1W
D908 1SS83
D902 1SS253
R908 22 1/4W
C902 1000p
R911 22 1/4W
D911 1SS83
D905 1SS253
Q905 2SA1381 D.E G-OUT
R916 470 1/2W
L904 0.68
C928 120p 2KV
R919 820
L902 1.2
R914 330 1/2W
C948 *2
C905 0.01 500V
Q903 2SC3063-RL B-OUT
R903 5.6K 7W
R906 5.6K 7W
R950 100 1W
D909 1SS83
D903 1SS253
R909 22 1/4W
C903 1000p
R912 22 1/4W
D912 1SS83
D906 1SS253
Q906 2SA1381 D.E B-OUT
C906 0.01 500V
R918 470 1/2W
L906 0.68
R921 820
C930 120p 2KV
R917 470 1/2W
L905 0.68
R920 820
C929 120p 2KV
L903 1.2
R915 330 1/2W
C949 *3
SG901 1.2KV
SG902 1.2KV
SG903 1.2KV
SG904 1.2KV
C946 0.1 25V
C926 4700p 2KV
TO RGB PWB RO
RO1 RED
RO2
ZD901 RD7.5ESB3
R925 100
C910 100 16V
R928 470 1/4W
C913 1000p
Q910 2SC3950 D.E R-DRIVE
R931 150 1W
R937 82
C919 150p
R934 0
Q908 2SC4158 G-AMP
R923 100
C908 0.1 25V
R924 100
C909 0.1 25V
Q909 2SC4158 B-AMP
TO RGB PWB GO
GO1 GREEN
GO2
ZD902 RD7.5ESB3
C911 100 16V
C914 1000p
C916 270p
Q916 2SC1740S PEAKING SW
R943 10K
C943 100p
R926 100
R929 470 1/4W
Q911 2SC3950 D.E G-DRIVE
R932 150 1W
R938 82
C920 150p
R927 100
R930 470 1/4W
Q912 2SC3950 D.E B-DRIVE
R933 150 1W
R939 82
C921 150p
C924 220p
TO RGB PWB BO
BO1 BULE
BO2
ZD903 RD7.5ESB3
C912 100 16V
C915 1000p
R940 10K
R935 0
C917 270p
R936 0
C918 270p
C922 0.1
C944 100p
R944 10K
R941 10K
Q917 2SC1740S PEAKING SW
C945 100p
R945 10K
R942 10K
Q918 2SC1740S PEAKING SW
TO RGB PWB RE
RE1
RE2
RE3
VIDEO BAND SW
HEATER
G1
DINAMIC FOCUS
XA
XB
VR901 DINAMIC FOCUS VOLUME
HE1
HE2
HE
SG/CRT
RK
GK
BK
G1
SCREEN
FOCUS
D-FOCUS
SC
C925 0.01 2KV
R946 100K 1/2W
TO FBT SCREEN
HEATER
TO FBT FOCUS
TO FBT ANODE

F

*1～*3
NON → XM-2950
15P → XM-2950G

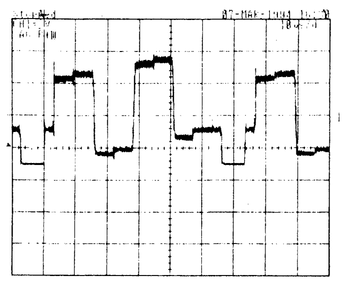
How to read : □-□-□□

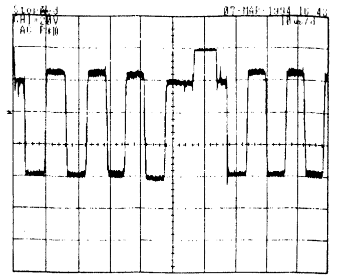

Address
Page
(EX) 1-1-1A
1 2 3
A
B
(Address)
1-1
Page

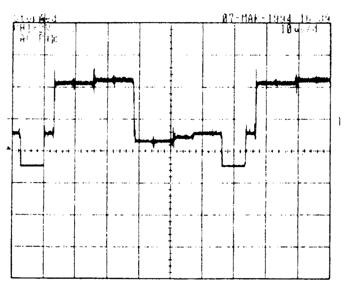
V-CRT PWB VOLTAGE

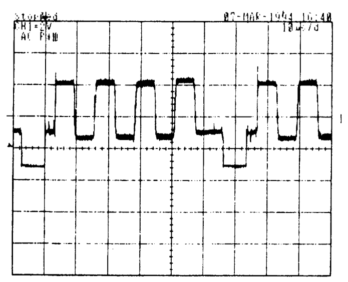
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q901, (E)	134	Input VIDEO Signal
Q902, (C)	174	ditto
Q903 (B)	134	ditto
Q904, (E)	134	Input VIDEO Signal
Q905, (C)	0	—
Q906 (B)	133	Input VIDEO Signal
Q907, (E)	14.1	—
Q908, (C)	134	Input VIDEO Signal
Q909 (B)	14.7	—
Q910, (E)	2.1	Input VIDEO Signal
Q911, (C)	14.1	—
Q912 (B)	2.6	Input VIDEO Signal
Q916, (E)	0	—
Q917, (C)	2.1	VIDEO BAND "NORMAL" Mode
Q918 (E)	0	VIDEO BAND "NARROW" Mode
(C)	0	VIDEO BAND "NORMAL" Mode
(B)	0.7	VIDEO BAND "NARROW" Mode
CONNECTOR "X"		
#1	177	—
#3	0.3	—
#5	6.2	—
#4, #6	0	—
CONNECTOR "RO",		
#1	11.2	Input VIDEO Signal
"GO"		
#2	0	—
"BO"		
CONNECTOR "RE"		
#1	14.6	—
#2	0	VIDEO BAND "NORMAL" Mode
	6.4	VIDEO BAND "NARROW" Mode
#3	0	—

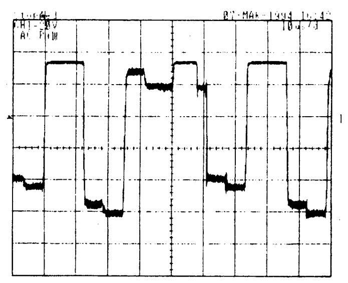
V-CRT PWB WAVEFORM

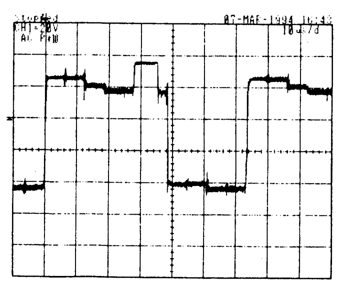

W1


W6

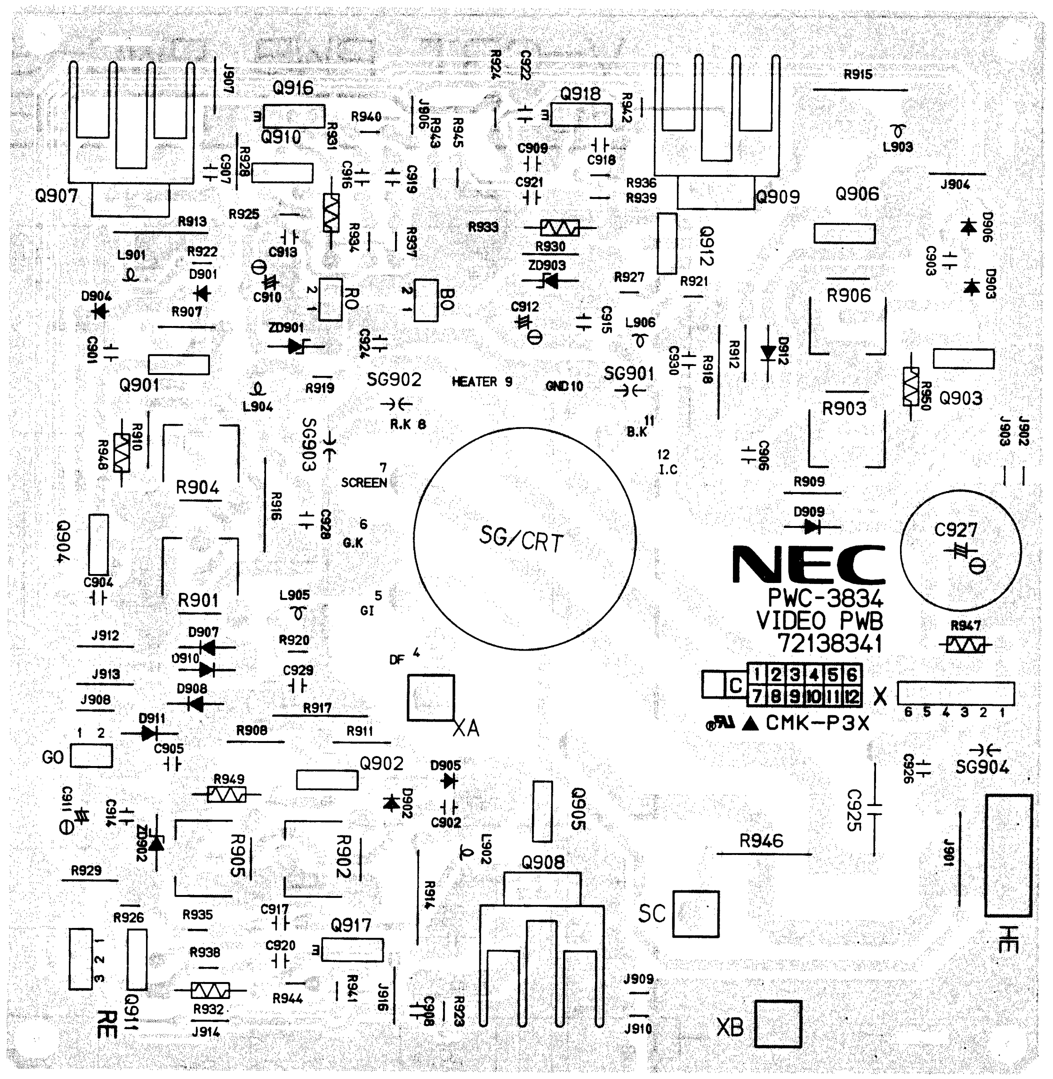

W2


W3

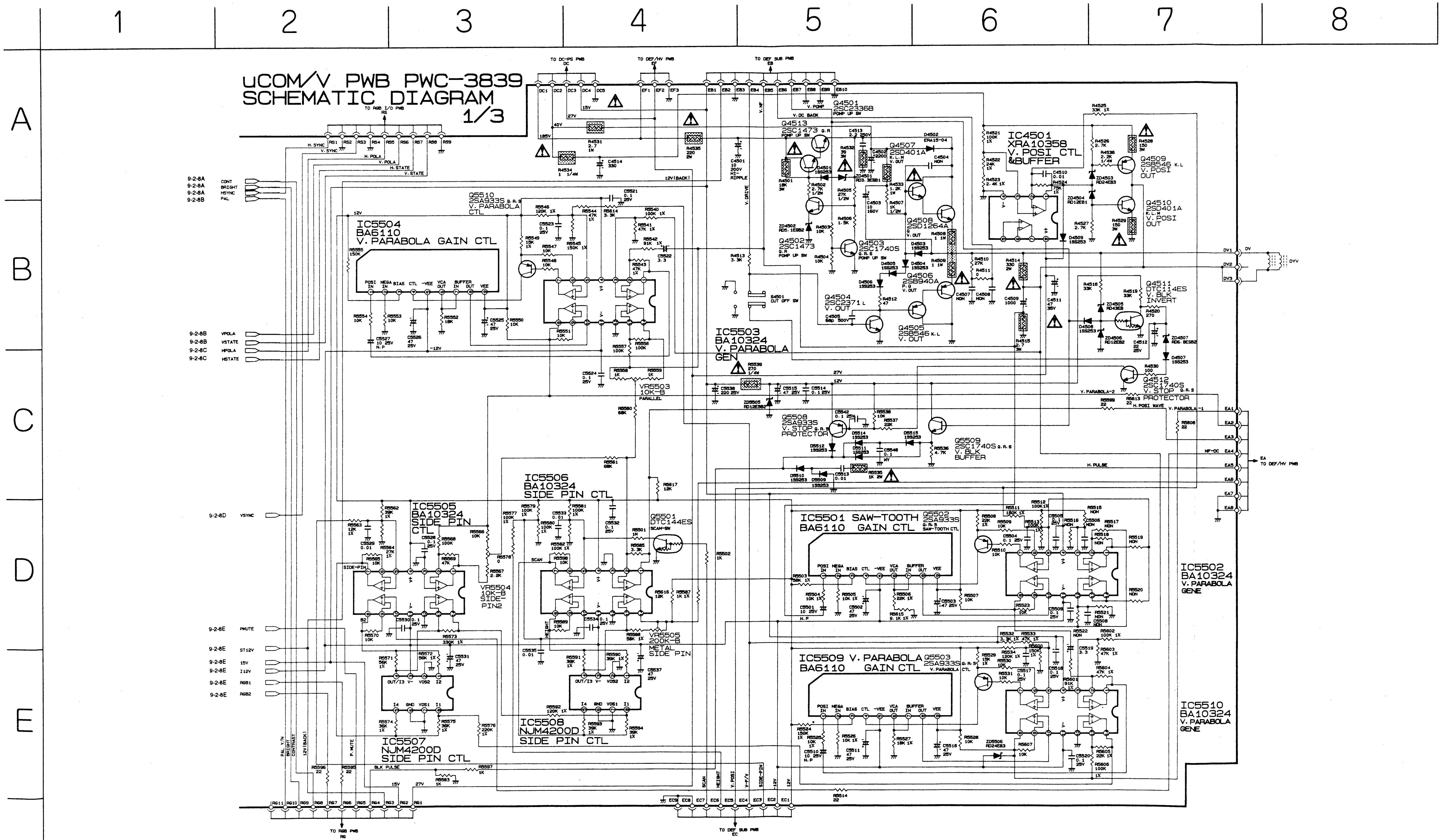

W4


W5

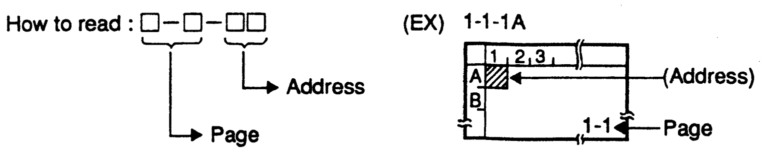
• V-CRT PWB (SOLDER SIDE)


NEC
PWC-3834
VIDEO PWB
72138341
CMK-P3X
SG/CRT
Q901
Q902
Q903
Q904
Q905
Q906
Q907
Q908
Q909
Q910
Q911
Q912
Q916
Q917
Q918
R901
R902
R903
R904
R905
R906
R946
C925
C927
SG901
SG902
SG903
SG904
HEATER 9
GND 10
SCREEN
G.K
B.K
I.C
R.K 8
GI
DF
RO
BO
GO
RE
HE
XA
XB
SC
X
1 2 3 4 5 6
7 8 9 10 11 12
6 5 4 3 2 1

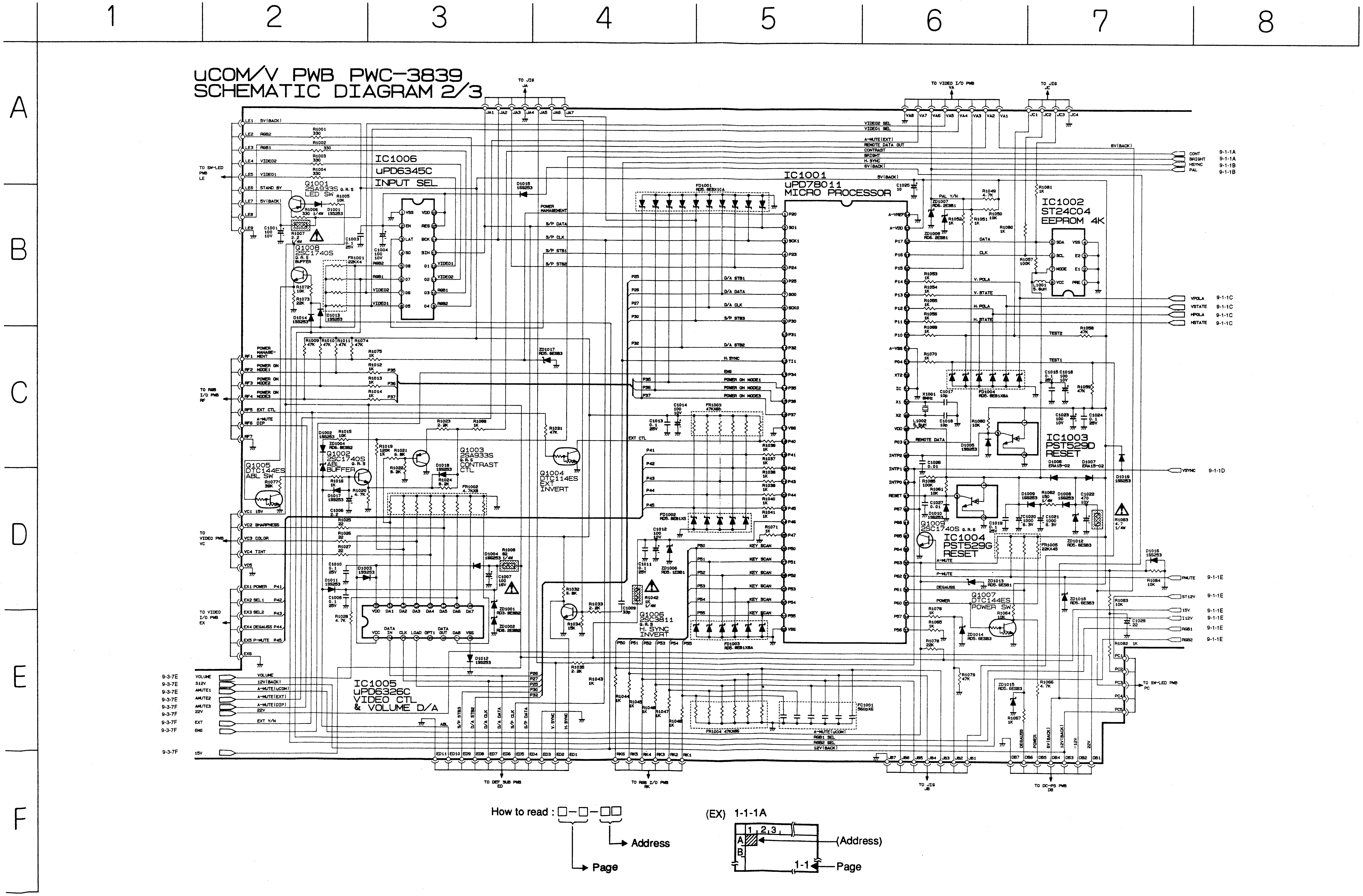
uCOM/V PWB PWC-3839 SCHEMATIC DIAGRAM 1/3


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO RGB I/O PWB RS
TO DC-PS PWB DC
TO DEF/HV PWB EF
TO DEF SUB PWB EB
IC5504 BA6110 V. PARABOLA GAIN CTL
Q5510 2SA933S V. PARABOLA CTL
IC5503 BA10324 V. PARABOLA GEN
Q4501 2SC2336B POMP UP SW
Q4513 2SC1473
Q4507 2SD401A V. OUT
Q4502 2SC1473
Q4503 2SC1740S
Q4508 2SD1264A V. OUT
Q4506 2SB940A
Q4504 2SC2371 V. OUT
Q4505 2SB546 V. OUT
IC4501 XRA10358 V. POSI CTL &BUFFER
Q4509 2SB546 V. POSI OUT
Q4510 2SD401A V. POSI OUT
Q4511 DTC114ES V. BLK INVERT
Q4512 2SC1740S V. STOP PROTECTOR
Q5508 2SA933S V. STOP PROTECTOR
Q5509 2SC1740S V. BLK BUFFER
IC5506 BA10324 SIDE PIN CTL
IC5505 BA10324 SIDE PIN CTL
Q5501 DTC144ES SCAN-SW
VR5503 10K-B PARALLEL
VR5504 10K-B SIDE-PIN2
VR5505 200K-B METAL SIDE PIN
IC5507 NJM4200D SIDE PIN CTL
IC5508 NJM4200D SIDE PIN CTL
IC5501 SAW-TOOTH BA6110 GAIN CTL
Q5502 2SA933S SAW-TOOTH CTL
IC5502 BA10324 V. PARABOLA GENE
IC5509 V. PARABOLA BA6110 GAIN CTL
Q5503 2SA933S V. PARABOLA CTL
IC5510 BA10324 V. PARABOLA GENE
DYV
EA TO DEF/HV PWB
TO RGB PWB RG
TO DEF SUB PWB EC
9-2-8A CONT
9-2-8A BRIGHT
9-2-8A HSYNC
9-2-8B PAL
9-2-8B VPOLA
9-2-8B VSTATE
9-2-8C HPOLA
9-2-8C HSTATE
9-2-8D VSYNC
9-2-8E PMUTE
9-2-8E ST12V
9-2-8E 15V
9-2-8E I12V
9-2-8E RGB1
9-2-8E RGB2

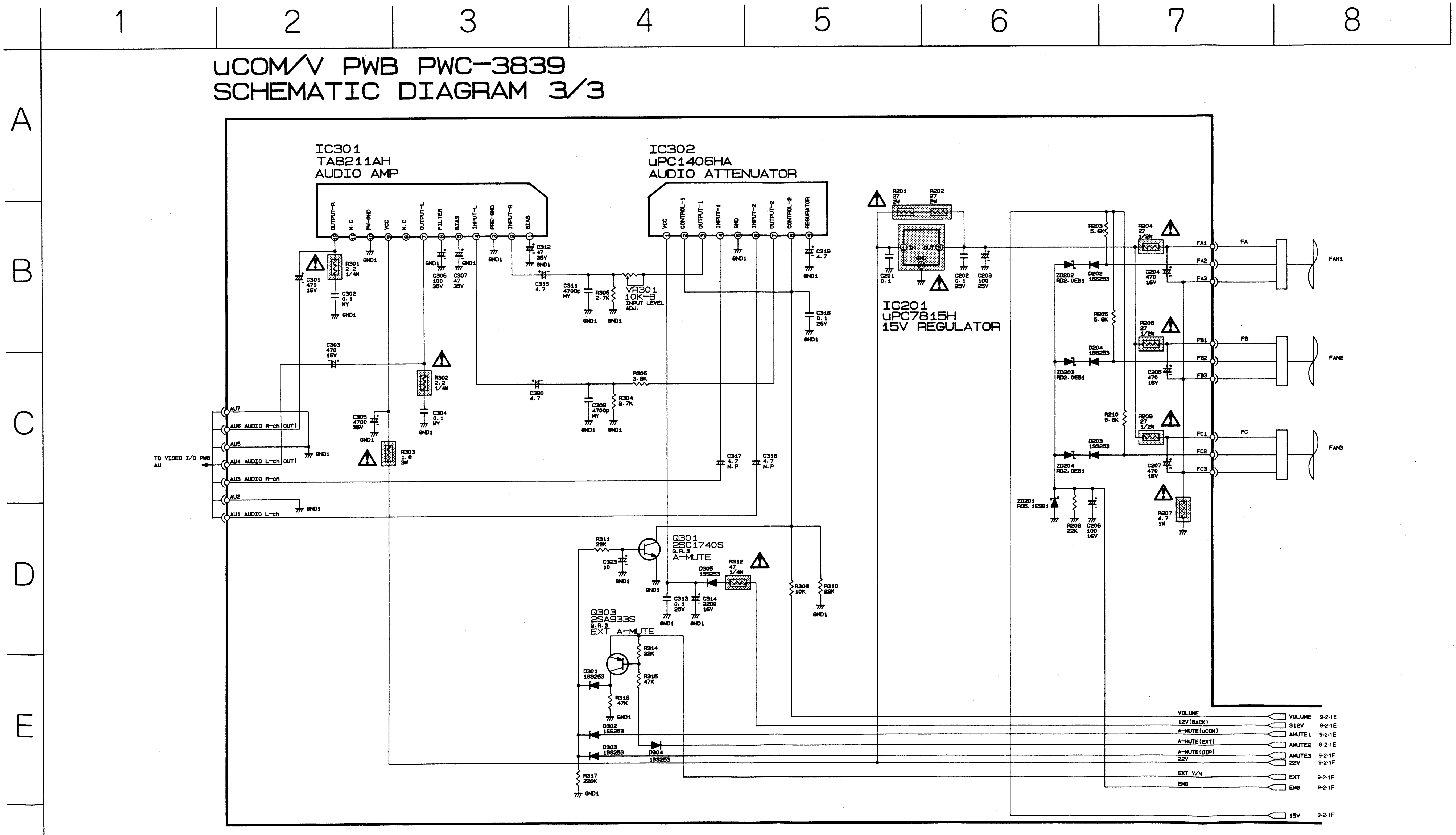
How to read : □–□–□□

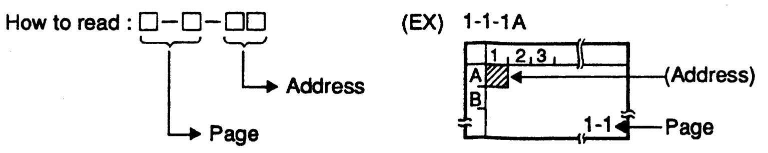

Address
Page
(EX) 1-1-1A
1, 2, 3,
A
B
(Address)
1-1
Page

uCOM/V PWB PWC-3839
SCHEMATIC DIAGRAM 2/3


1
2
3
4
5
6
7
8
A
B
C
D
E
F
IC1006
uPD6345C
INPUT SEL
IC1001
uPD78011
MICRO PROCESSOR
IC1002
ST24C04
EEPROM 4K
IC1003
PST529D
RESET
IC1004
PST529G
RESET
IC1005
uPD6326C
VIDEO CTL
& VOLUME D/A
Q1001
2SA933S
LED SW
Q1008
2SC1740S
BUFFER
Q1002
2SC1740S
ABL BUFFER
Q1003
2SA933S
CONTRAST CTL
Q1004
DTC114ES
EXT INVERT
Q1005
DTC144ES
ABL SW
Q1006
2SC3811
H. SYNC INVERT
Q1007
DTC144ES
POWER SW
Q1009
2SC1740S
TO JIG JA
TO VIDEO I/O PWB VA
TO JIG JC
TO SW-LED PWB LE
TO RGB I/O PWB RF
TO VIDEO PWB VC
TO VIDEO I/O PWB EX
TO DEF SUB PWB ED
TO RGB I/O PWB RK
TO JIG JB
TO DC-PS PWB DB
TO SW-LED PWB PC
CONT 9-1-1A
BRIGHT 9-1-1A
HSYNC 9-1-1B
PAL 9-1-1B
VPOLA 9-1-1C
VSTATE 9-1-1C
HPOLA 9-1-1C
HSTATE 9-1-1C
VSYNC 9-1-1D
PMUTE 9-1-1E
ST12V 9-1-1E
15V 9-1-1E
12V 9-1-1E
RGB1 9-1-1E
RGB2 9-1-1E
9-3-7E VOLUME
9-3-7E S12V
9-3-7E AMUTE1
9-3-7E AMUTE2
9-3-7F AMUTE3
9-3-7F 22V
9-3-7F EXT
9-3-7F EMG
9-3-7F 15V
How to read : □-□-□□
Address
Page
(EX) 1-1-1A
(Address)
Page

uCOM/V PWB PWC-3839
SCHEMATIC DIAGRAM 3/3


1
2
3
4
5
6
7
8
A
B
C
D
E
F
IC301
TA8211AH
AUDIO AMP
OUTPUT-R
N.C
PW-GND
VCC
N.C
OUTPUT-L
FILTER
BIAS
INPUT-L
PRE-GND
INPUT-R
BIAS
IC302
uPC1406HA
AUDIO ATTENUATOR
VCC
CONTROL-1
OUTPUT-1
INPUT-1
GND
INPUT-2
OUTPUT-2
CONTROL-2
REGURATOR
C301 470 16V
R301 2.2 1/4W
C302 0.1 MY
GND1
C306 100 35V
C307 47 35V
C312 47 35V
C315 4.7
C311 4700p MY
R306 2.7K
VR301 10K-B INPUT LEVEL ADJ.
C319 4.7
C316 0.1 25V
C303 470 16V
R302 2.2 1/4W
C304 0.1 MY
C305 4700 35V
R303 1.8 3W
C320 4.7
C309 4700p MY
R304 2.7K
R305 3.9K
C317 4.7 N.P
C318 4.7 N.P
TO VIDEO I/O PWB AU
AU7
AU6 AUDIO R-ch(OUT)
AU5
AU4 AUDIO L-ch(OUT)
AU3 AUDIO R-ch
AU2
AU1 AUDIO L-ch
Q301 2SC1740S Q.R.S A-MUTE
R311 22K
C323 10
D305 1SS253
R312 47 1/4W
C313 0.1 25V
C314 2200 16V
R308 10K
R310 22K
Q303 2SA933S Q.R.S EXT A-MUTE
R314 22K
R315 47K
D301 1SS253
R316 47K
D302 1SS253
D303 1SS253
D304 1SS253
R317 220K
R201 27 2W
R202 27 2W
IN OUT GND
C201 0.1
C202 0.1 25V
C203 100 25V
IC201
uPC7815H
15V REGULATOR
R203 5.6K
R204 27 1/2W
ZD202 RD2.0EB1
D202 1SS253
C204 470 16V
R205 5.6K
R206 27 1/2W
D204 1SS253
ZD203 RD2.0EB1
C205 470 16V
R210 5.6K
R209 27 1/2W
D203 1SS253
ZD204 RD2.0EB1
C207 470 16V
ZD201 RD5.1ESB1
R208 22K
C206 100 16V
R207 4.7 1W
FA1
FA2
FA3
FA
FAN1
FB1
FB2
FB3
FB
FAN2
FC1
FC2
FC3
FC
FAN3
VOLUME
12V(BACK)
A-MUTE(uCOM)
A-MUTE(EXT)
A-MUTE(DIP)
22V
EXT Y/N
EMG
VOLUME 9-2-1E
S12V 9-2-1E
AMUTE1 9-2-1E
AMUTE2 9-2-1E
AMUTE3 9-2-1F
22V 9-2-1F
EXT 9-2-1F
EMG 9-2-1F
15V 9-2-1F


How to read : □-□-□□
Address
Page
(EX) 1-1-1A
1
2
3
A
B
(Address)
1-1
Page

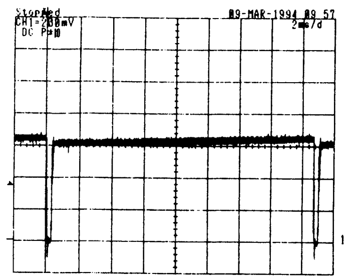
µCOM/V PWB VOLTAGE

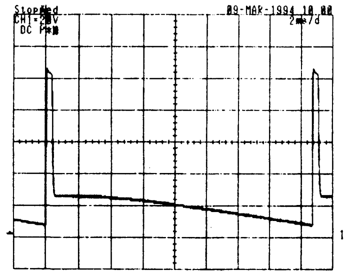
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC5501		
#1	−0.9	—
#2	−0.9	—
#3	−10.7	—
#4	−10.7	—
#5	−11.9	—
#6	−1.1	—
#7	−1.1	—
#8	−1.0	—
#9	12.0	—
IC5502		
#1	13.6	—
#2	0.3	—
#3	0.3	—
#4	14.8	—
#5	7.0~4.9	V-POSITION DOWN~UP
#6	7.0~4.9	V-POSITION DOWN~UP
#7	6.4~4.3	V-POSITION DOWN~UP
#8	−1.0	—
#9	−1.0	—
#10	−1.0	—
#11	−11.9	—
#12	0.3	—
#13	13.6	—
#14	13.6	—
IC5503		
#1	6.4	—
#2	6.4	—
#3	6.3	—
#4	12.0	—
#5	9.1~3.4	fv: 40Hz~120Hz
#6	9.1~3.4	fv: 40Hz~120Hz
#7	8.5~2.8	fv: 40Hz~120Hz
#8	−0.3	—
#9	−0.3	—
#10	−0.3	—
#11	−11.9	—
#12	0	—
#13	0	—
#14	0	—
IC5504		
#1	−0.2	—
#2	−0.2	—
#3	−10.7	—
#4	−10.7	—
#5	−11.9	—
#6	−0.3	—
#7	−0.3	—
#8	−0.3	—
#9	12.0	—
IC5505		
#1	0	—
#2	0	—
#3	0	—
#4	12.0	—
#5	8.3~3.3	SIDE PIN PIN~BARREL
#6	8.3~3.3	SIDE PIN PIN~BARREL
#7	8.3~3.3	SIDE PIN PIN~BARREL
#8	2.8	—
#9	2.8	—
IC5505		
#10	2.8	—
#11	−11.9	—
#12	0	—
#13	0	—
#14	0	—
IC5506		
#1	0	—
#2	0	—
#3	0	—
#4	12.0	—
#5	5.7	—
#6	5.7	—
#7	5.7	—
#8	6.8	—
#9	6.8	—
#10	6.8	—
#11	−11.9	—
#12	0	—
#13	0	—
#14	0	—
IC5507		
#1	0	—
#2, #6, #7	0	—
#3	−11.9	—
#4	0	—
#5	0	—
#8	0	—
IC5508		
#1	0	—
#2, #6, #7	0	—
#3	−11.9	—
#4	0	—
#5	0	—
#8	0	—
IC5509		
#1	0	—
#2	0	—
#3	−10.7	—
#4	−10.7	—
#5	−11.9	—
#6	−0.1	—
#7	−0.1	—
#8	0	—
#9	12.0	—
IC5510		
#1	6.4	—
#2	6.4	—
#3	6.4	—
#4	14.8	—
#5	9.1~3.4	fv: 40Hz~120Hz
#6	9.1~3.4	fv: 40Hz~120Hz
#7	8.5~2.8	fv: 40Hz~120Hz
#8	0	—
#8	0	—
#10	0	—
#11	−11.9	—
#12	0	—
#13	0	—
#14	0	—
IC4501		
#1	1.8~24.4	V POSITION DOWN~UP
#2	8.2	—
#3	8.2	—
#4	0	—
#5	0.4	—
#6	0.4	—
#7	0	—
#8	27.8	—
Q5501		
(E)	0	—
(C)	5.4	SCAN SELECT UNDER
	0	SCAN SELECT OVER
(B)	0	SCAN SELECT UNDER
	7.6	SCAN SELECT OVER
Q5502		
(E)	7.0~4.9	V POSITION DOWN~UP
(C)	−10.7	—
(B)	6.4~4.3	V POSITION DOWN~UP
Q5503		
(E)	9.1~3.4	fv: 40Hz~120Hz
(C)	−10.7	—
(B)	8.5~2.8	fv: 40Hz~120Hz
Q5508		
(E)	12.0	—
(C)	0	—
(B)	12.0	—
Q5509		
(E)	0.2	—
(C)	12.0	—
(B)	0.2	—
Q5510		
(E)	9.2~3.5	fv: 40Hz~120Hz
(C)	−10.5	—
(B)	8.6~2.9	fv: 40Hz~120Hz
Q4501		
(E)	39.4	—
(C)	180.2	—
(B)	35.6	—
Q4502		
(E)	5.2	—
(C)	7.3	—
(B)	5.9	—
Q4503		
(E)	0	—
(C)	5.8	—
(B)	0.02	—
Q4504		
(E)	0	—
(C)	0.6	—
(B)	19.9	—
Q4505		
(E)	20.2	—
(C)	0	—
(B)	19.9	—
Q4506		
(E)	20.7	—
(C)	0	—
(B)	20.2	—
Q4507		
(E)	21.8	—
(C)	39.4	—
(B)	22.2	—
Q4508		
(E)	21.2	—
(C)	39.4	—
(B)	21.8	—
Q4509		
(E)	26.9~39.2	V POSITION DOWN~UP
(C)	21.1~19.9	V POSITION DOWN~UP
(B)	26.4~39.2	V POSITION DOWN~UP
Q4510		
(E)	0~12.5	—
(C)	21.1~19.9	—
(B)	0~13.1	—
Q4511		
(E)	0	—
(C)	4.5~1.9	fv: 40Hz~120Hz
(B)	0.2	—
Q4512		
(E)	0	—
(C)	11.9	—
(B)	0	—
Q4513		
(E)	35.6	—
(C)	180.2	—
(B)	35.9	—
CONNECTOR "RS"		
#1	0.3	—
#2, #4, #9	0	—
#3	0.3	—
#5	0	H SYNC POLA: POSI
	4.2	H SYNC POLA: NEG
#6	0	V SYNC POLA: POSI
	4.2	V SYNC POLA: NEG
#7	0	NO SYNC or SYNC ON GREEN
	4.2	SEPARATE or COMPOSITE SYNC
#8	0	NO SYNC or COMPOSITE SYNC SEPARATE SYNC
	4.2	SEPARATE SYNC
CONNECTOR "DC"		
#1	185.9	—
#2	39.3	—
#3	28.2	—
#4	14.8	—
#5	0	—
CONNECTOR "EF"		
#1	185.9	—
#2	28.2	—
#3	0	—
CONNECTOR "EB"		
#1	14.8	—
#2	12.1	—
#3, #8, #9, #10	0	—

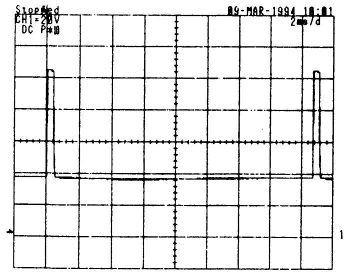
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "EB"		
#4	0.8	—
#5	0	—
#6	16.8	—
#7	0.2	—
CONNECTOR "DV"		
#1	20.5	—
#2, #3	20.6	—
CONNECTOR "EA"		
#1	0.1	—
#2	0.3	—
#3	0	—
#4	2.6~8.8	fu: 15.5kHz Width Min~ fu:50kHz Width Max
#5	0.3	—
#6	0.2	—
#7, #8	0	—
CONNECTOR "EC"		
#1	12.1	—
#2	–11.7	—
#3	11.1~1.1	SIDE PIN MIN~MAX
#4	11.1~1.1	fv: 40Hz~120Hz
#5	11.1~1.1	V POSITION DOWN~UP
#6	1.1~11.1	V HEIGHT MIN~MAX
#7	7.6	SCAN SELECT: OVER
	0	SCAN SELECT: UNDER
#8, #9	0	—
CONNECTOR "RG"		
#1	28.1	—
#2	14.7	—
#3	12.1	—
#4	0.3	—
#5	0	NORMAL
	2.8	P-MUTE OPERATED
#6	0	VIDEO 1, 2, RGB 2 SELECTED
	6.0	RGB 1 SELECTED
#7	0	VIDEO 1, 2, RGB 1 SELECTED
	6.0	RGB 2 SELECTED
#8	4.2~6.9	CONTRAST MIN~MAX
#9	3.7~4.3	BRIGHT MIN~MAX
#10	0	NTSC, M-NTSC SELECTED
	4.6	PAL SELECTED
#11	0	—
IC1001		
#1	4.3	—
#2	0.1	—
#3	4.9	—
#4, #5, #6	0	—
#7	0.1	—
#8	4.7	—
#9, #10, #11	0	—
#12	0.3	—
IC1001		
#13	0.4	—
#14, #15, #16	3.8	—
#14	3.8	NORMAL
	0	DIP SW1 #1pin ON
#15	3.8	NORMAL
	0	DIP SW1 #2pin ON
#16	3.8	NORMAL
	0	DIP SW1 #3pin ON
#17	0	—
#18	5.0	NORMAL
	0	DIP SW1 #7pin ON
#19	4.0	NORMAL
	0	EXT CTL SEL1 ON
#20	4.0	NORMAL
	0	EXT CTL SEL1 ON
#21	4.0	NORMAL
	0	EXT CTL SEL1 ON
#22	4.0	NORMAL
	0	EXT CTL DEGAUSS ON
#23	4.0	NORMAL
	0	EXT CTL P-MUTE ON
#24	5.1	—
#25~#35	0	—
#36	4.9	NORMAL
	0	DEGAUSS OPERATE
#37	0	NORMAL
	2.8	P-MUTE OPERATE
#38	0	NORMAL
	4.8	A-MUTE OPERATE
#39~#41	0	—
#42, #43	5.0	—
#44, #45	0.3	—
#46	5.0	—
#47	4.6	—
#48	5.0	—
#49, #50	2.3	—
#51, #52	0	—
#53	4.1	—
#54	0	—
#55	4.1	—
#56	0	NO SYNC or SYNC ON GREEN
	4.2	SEPARATE or COMPOSITE SYNC
#57	0	H SYNC POLA: POSI
	4.2	H SYNC POLA: NEG
#58	0	NO SYNC or COMPOSITE SYNC or SYNC ON GREEN
	4.2	SEPARATE SYNC
#59	0	V SYNC POLA: POSI
	4.2	V SYNC POLA: NEG
#60	0	NTSC, M-NTSC SELECTED
	4.6	PAL SELECTED
#61, #62	0	—
#63	5.0	—
#64	0	—
IC1002		
#1~#6	0	—
#7, #8	5.0	—
IC1003		
#1	5.0	—
#2	0	—
#3	5.0	—
IC1004		
#1	5.0	—
#2	0	—
#3	5.0	—
TC1005		
#1	5.0	—
#2	0.1	—
#3	4.7	—
#4	0	—
#5	0.7	—
#6	0.8	—
#7	2.7	—
#8	0.7	—
#9	10.5	—
#10	0.3~10.6	VOLUME MIN~MAX
#11	0.7~10.4	SHARPNESS MIN~MAX
#12	1.1~10.5	TINT MIN~MAX
#13	0.4~10.5	COLOR MIN~MAX
#14	0.3~10.6	BRIGHT MIN~MAX
#15	0.2~10.5	CONTRAST MIN~MAX
#16	11.5	—
IC1006		
#1	0	—
#2, #15, #16	5.2	—
#3	0	—
#4	5.1	—
#5	0	VIDEO 1, 2, RGB 1 SELECTED
	6.0	RGB 2 SELECTED
#6	0	VIDEO 1, 2, RGB 2 SELECTED
	6.0	RGB 1 SELECTED
#7	0	VIDEO 1, RGB 1, 2 SELECTED
	11.8	VIDEO 2 SELECTED
#8	0	VIDEO 2, RGB 1, 2 SELECTED
	11.9	VIDEO 1 SELECTED
#9	0.1	RGB 2 SELECTED
	3.7	VIDEO 1, 2, RGB 2 SELECTED
#10	0.1	RGB 1 SELECTED
	3.7	VIDEO 1, 2, RGB 2 SELECTED
#11	0.1	VIDEO 2 SELECTED
	3.7	VIDEO 1, RGB 1, 2 SELECTED
#12	0.1	VIDEO 1 SELECTED
	3.7	VIDEO 2, RGB 1, 2 SELECTED
#13	0.1	—
#14	4.9	—
Q1001		
(E)	5.0	—
((C)	0	—
(B)	4.4	—
Q1002		
(E)	7.2~12.2	Full beam~Cut off
(C)	14.8	—
(B)	7.8~12.9	Full beam~Cut off
IQ1003		
(E)	0.8~6.4	CONTRAST MIN~MAX
(C)	0	—
(B)	0.2~5.8	CONTRAST MIN`MAX
Q1004		
(E)	0	—
(C)	5.0	NORMAL
	0	DIP SW1 #7pin ON
(B)	0	NORMAL
	2.8	DIP SW1 37pin ON
Q1005		
(E)	0	—
(C)	0	RGB 1, 2 SELECTED
	7.8~12.9	VIDEO 1, 2, Full beam~Cut off
(B)	0	VIDEO 1, 2 SELECTED
	5.1	RGB 1, 2 SELECTED
Q1006		
(E)	0	—
(C)	4.9	—
(B)	0	—
Q1007		
(E)	0	—
(C)	2.7	POWER ON
	0	STAND BY
(B)	0	POWER ON
	3.7	STAND BY
Q1008		
(E)	0	VIDEO 1, 2 SELECTED
	5.1	RGB 1, 2 SELECTED
(C)	14.6	—
(B)	0	VIDEO 1, 2 SELECTED
	5.7	RGB 1, 2 SELECTED
Q1009		
(E)	0	—
(C)	5.0	—
(B)	0	—
CONNECTOR "LE"		
#1	5.0	—
#2	3.1	RGB 2 SELECTED
	3.7	VIDEO 1, 2, RGB 1 SELECTED
#3	3.1	RGB 1 SELECTED
	3.7	VIDEO 1, 2, RGB 2 SELECTED
#4	3.1	VIDEO 2 SELECTED
	3.7	VIDEO 1, RGB 1, 2 SELECTED
#5	3.1	VIDEO 1 SELECTED
	3.7	VIDEO 2, RGB 1, 2 SELECTED
#6	0	—
#7	5.0	—
#8	7.0	—
#9	0	—
CONNECTOR "RF"		
#1	4.3	NORMAL
	0	POWER MANAGEMENT ON
#2	3.8	NORMAL
	0	POWER MODE 1 ON
#3	3.8	NORMAL
	0	POWER MODE 2 ON
#4	3.8	NORMAL
	0	POWER MODE 3 ON
#5	0	NORMAL
	12.1	EXT CTL ON

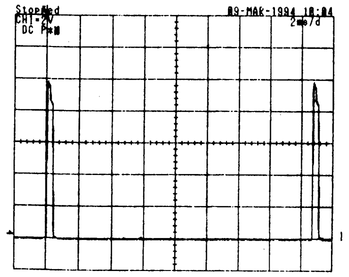
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "RF"		
#6	0	NORMAL, A-MUTE (EXT) ON
	12.1	EXT CTL ON (A-MUTE OFF)
#7	0	—
CONNECTOR "VC"		
#1	14.7	—
#2	0.7~10.4	SHARPNESS MIN~MAX
#3	0.4~10.5	COLOR MIN~MAX
#4	1.1~10.5	TINT MIN~MAX
#5	0	—
CONNECTOR "EX"		
#1	4.0	NORMAL
	0	EXT CTL POWER ON
#2	4.0	NORMAL
	0	EXT CTL SEL 1 ON
#3	4.0	NORMAL
	0	EXT CTL SEL 2 ON
#4	4.0	NORMAL
	0	EXT CTL DEGAUSS ON
#5	4.0	NORMAL
	0	EXT CTL P-MUTE ON
#6	0	—
CONNECTOR "ED"		
#1	4.9	—
#2	0.1	—
#3	0	—
#4	0.1	—
#5	4.9	—
#6	0.2	—
#7	4.9	—
#7	4.9	—
#8, #9	0	—
#10	7.8~12.9	Full beam~Cut off
#11	0	—
CONNECTOR "RK"		
#1~#6	0	—
CONNECTOR "DB"		
#1	22.4	—
#2	−11.7	—
#3	12.1	—
#4	5.9	—
#5	1.7	POWER ON
	0	STAND BY
#6	4.8	NORMAL
	0.7	DEGAUSS OPERATED
#7	0	—
CONNECTOR "DC"		
#1, #5	12.1	—
#2	0	—
#3, #4	5.9	—
CONNECTOR "VA"		
#1	5.8	—
#2	7.0	—
#3	4.6	—
#4	0	VIDEO 2, RGB 1, 2 SELECTED
	11.9	VIDEO 1 SELECTED
#5	0	VIDEO 1, RGB 1, 2 SELECTED
	11.9	VIDEO 2 SELECTED
#6	0	NTSC, M-NTSC SELECTED
	4.6	PAL SELECTED
#7	0	NORMAL, EXT A-MUTE ON
	12.1	EXT CTL ON (EXT A-MUTE OFF)
#8	0	—
IC301		
#1, #5	2.1	—
#2, #4	2.2	—
#3, #10	0	—
#6	7.5	—
#7	11.1	—
#8, #11	2.2	—
C301		
#9	22.2	—
#12	10.7	—
IC302		
#1	11.1	—
#2, #8	0.2~6.3	VOLUME MIN~MAX
#3	2.8	—
#4	2.9	—
#5	0	—
#6, #7	2.9	—
#9	6.3	—
IC201		
#1	22.3	
#2	0	—
#3	15.0	—
Q301		
(E)	0	—
(C)	0.2~6.3	VOLUME MIN~MAX
	0	A-MUTE ON
(B)	0	NORMAL
	0.7	A-MUTE ON
Q303		
(E)	0	NORMAL
	12.1	EXT CTL ON
(C)	0	NORMAL
	12.1	A-MUTE (EXT CTL) OPERATE
(B)	0	NORMAL
	12.1	EXT CTL ON A-MUTE (EXT CTL) OFF
	11.5	EXT CTL ON A-MUTE (EXT CTL) ON
CONNECTOR "AU"		
#1, #3	4.1	—
#2, #5, #7	0	—
#4, #6	0	—
CONNECTOR "FA, FB, FC"		
#1	13.1	—
#2	1.3	—
#3	1.1	—

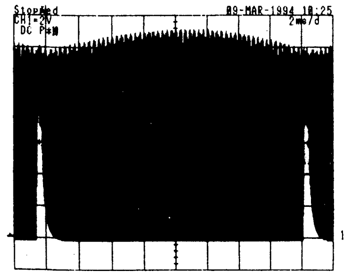
µCOM/V PWB WAVEFORM

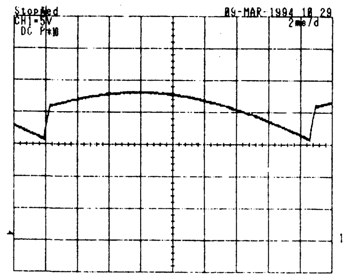

W1

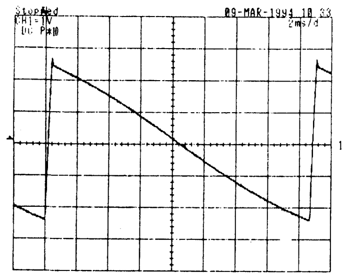

W2

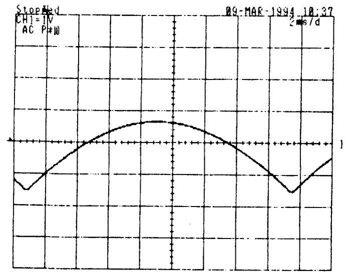

W3

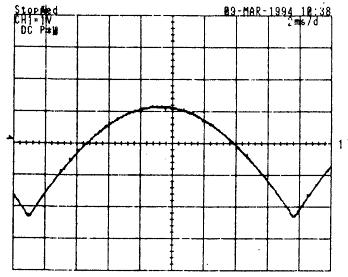

W4

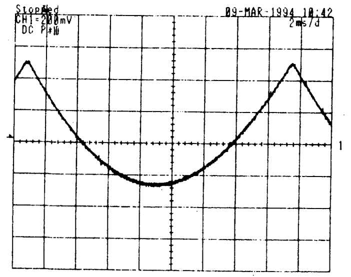

W5

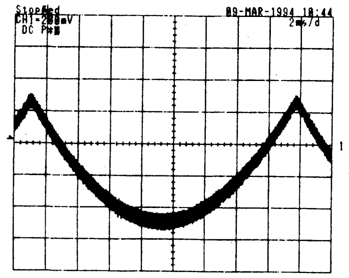

W6

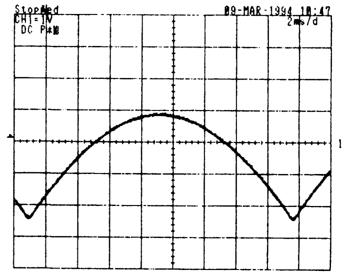

W7


W8

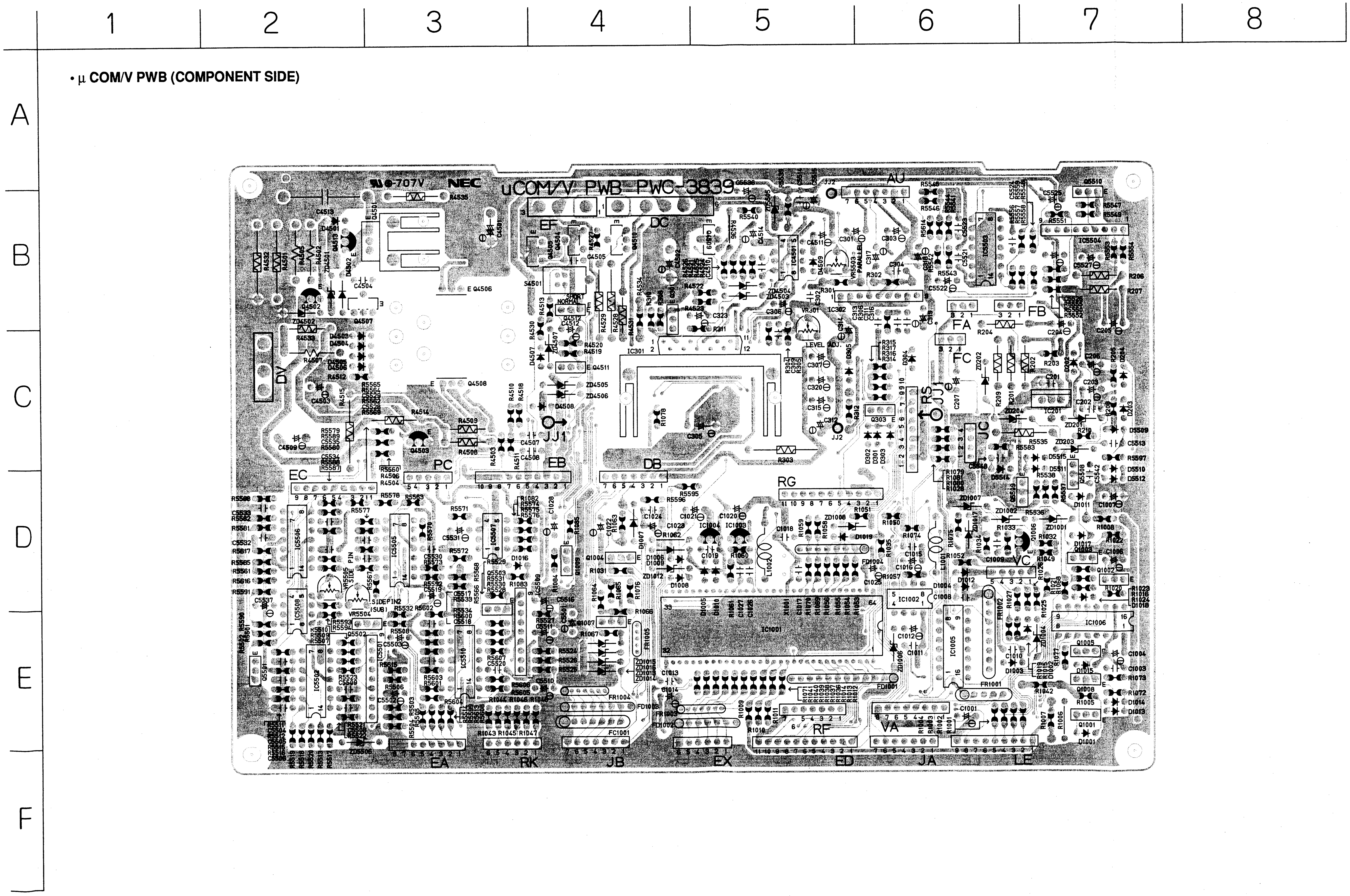

W9


W10

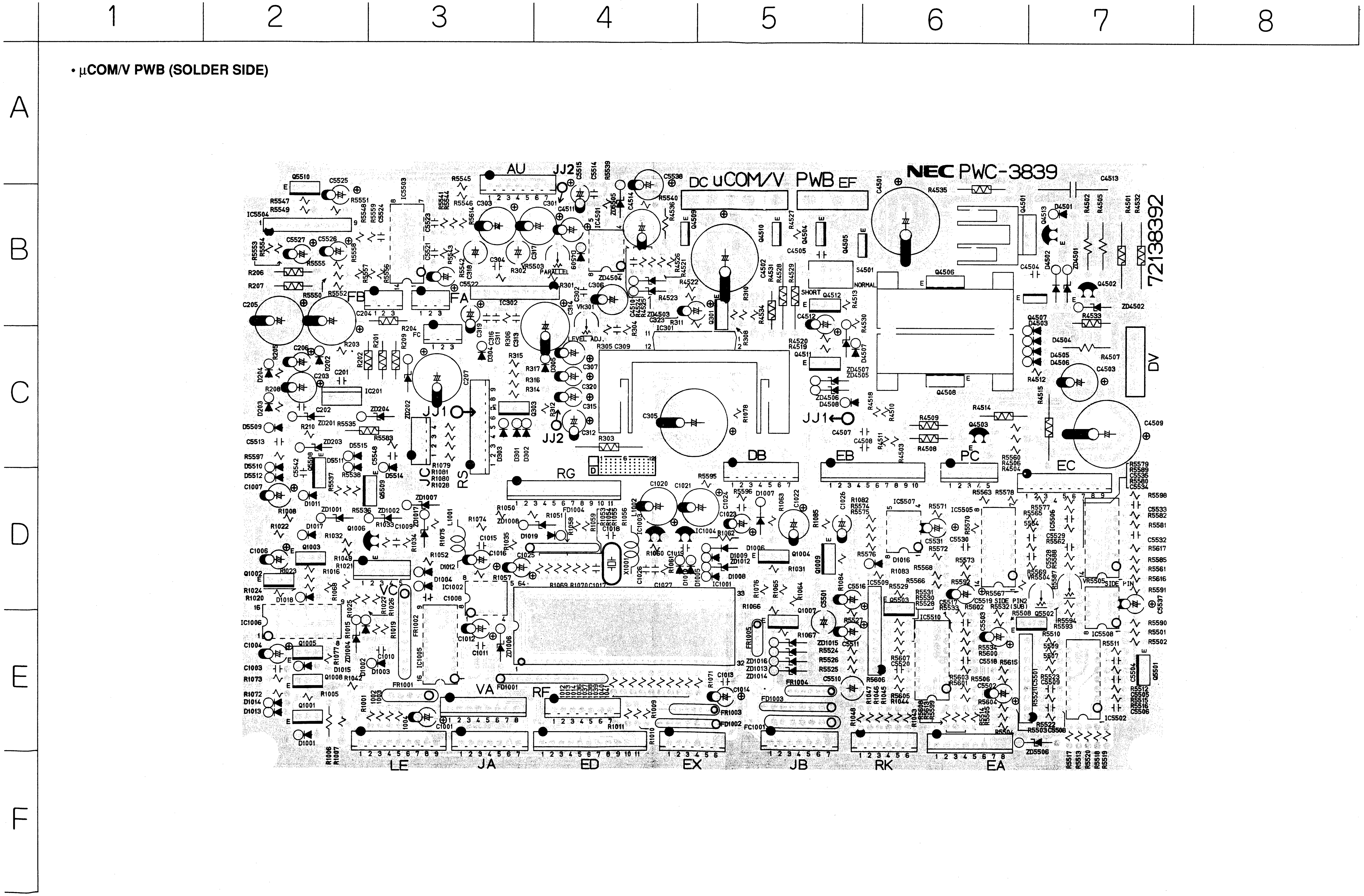

W11


W12

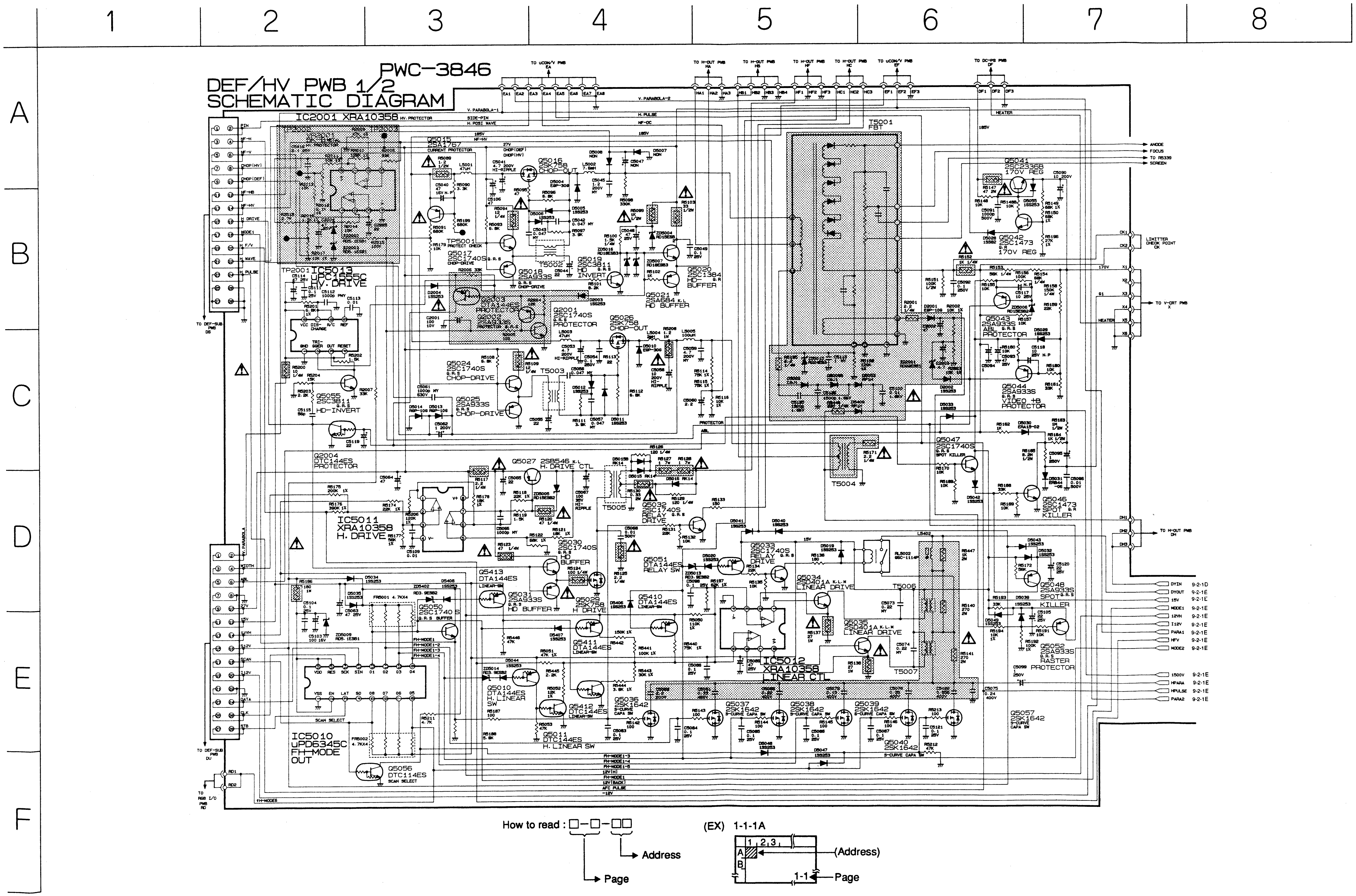
• µ COM/V PWB (COMPONENT SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
uCOM/V PWB PWC-3839
NEC
AU
EF
DC
DV
PC
EB
DB
EC
RG
FA
FB
FC
RS
JJ1
JJ2
JC
LC
IC1001
IC301
IC201
EA
RK
JB
EX
ED
JA
LE
VA
RF
LEVEL ADJ
NORMAL
SHORT
SIDE PIN2
(SUB)
PARALLEL

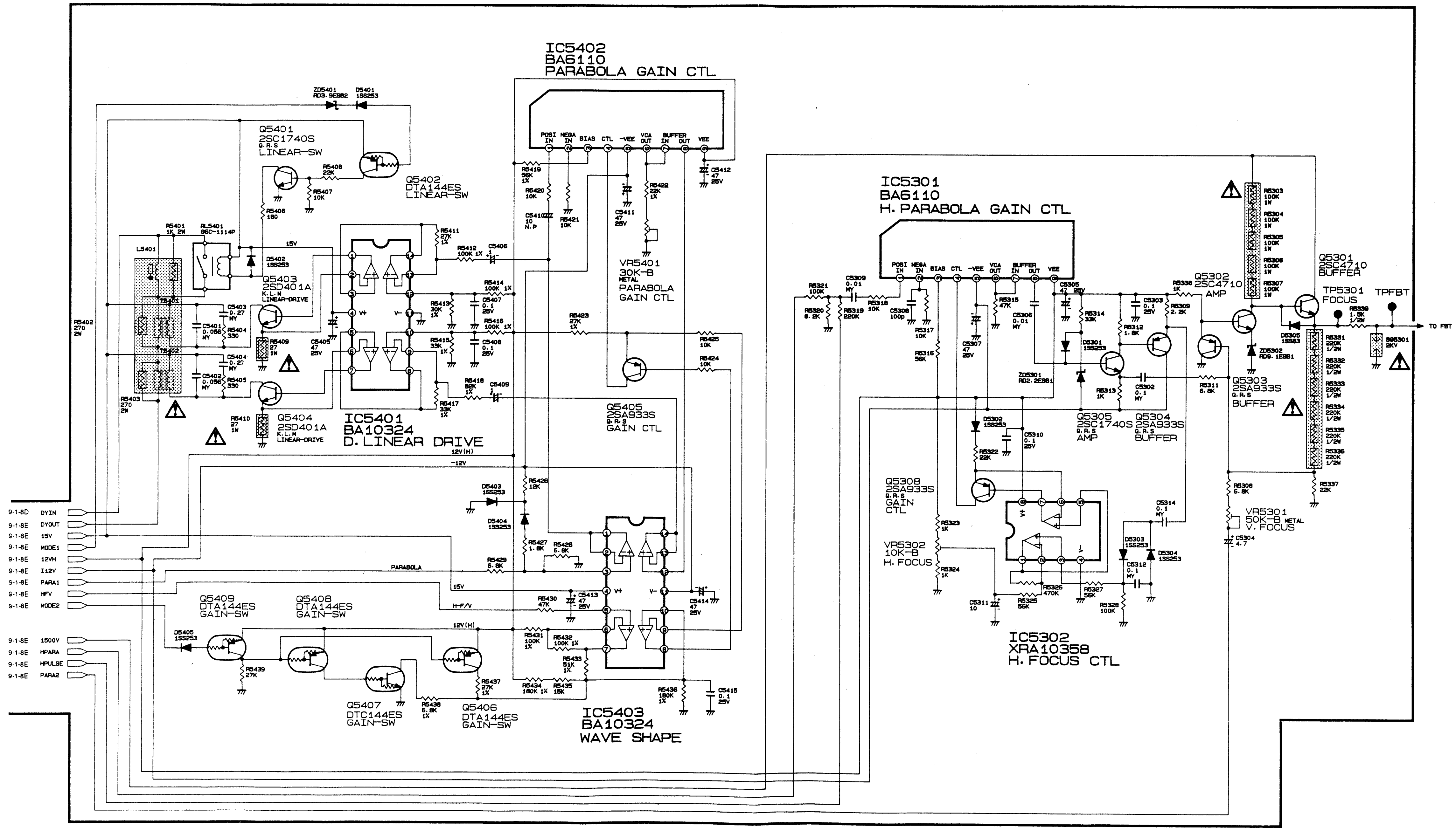
• µCOM/V PWB (SOLDER SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC PWC-3839
DC uCOM/V PWB EF
72138392
AU
JJ2
JJ1
FB
FA
FC
JC
RS
RG
DB
EB
PC
EC
DV
VC
VA
RF
LE
JA
ED
EX
JB
RK
EA
IC301
IC302
IC1001
IC1002
IC1005
IC1006
IC5502
IC5503
IC5504
IC5505
IC5507
IC5508
IC5510
PARALLEL
LEVEL ADJ.
SHORT
NORMAL
SIDE PIN
SIDE PIN2
(SUB)

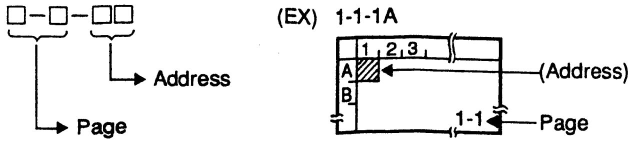
PWC-3846
DEF/HV PWB 1/2 SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
F
IC2001 XRA10358
IC5013 uPC1555C HV. DRIVE
IC5011 XRA10358 H. DRIVE
IC5010 uPD6345C FH-MODE OUT
IC5012 XRA10358 LINEAR CTL
Q5015 2SA1767 CURRENT PROTECTOR
Q5016 2SK758 CHOP-OUT
Q5017 2SC1740S CHOP-DRIVE
Q5018 2SA933S CHOP-DRIVE
Q5019 2SC3811 HD INVERT
Q5020 2SC1384 HD BUFFER
Q5021 2SA684 HD BUFFER
Q2001 2SC1740S PROTECTOR
Q2002 2SA933S PROTECTOR
Q2003 DTA144ES PROTECTOR
Q2004 DTC144ES PROTECTOR
Q5024 2SC1740S CHOP-DRIVE
Q5025 2SA933S CHOP-DRIVE
Q5026 2SK758 CHOP-OUT
Q5055 2SC3811 HD-INVERT
Q5027 2SB546 H. DRIVE CTL
Q5032 2SC1740S RELAY DRIVE
Q5030 2SC1740S HD BUFFER
Q5031 2SA933S HD BUFFER
Q5029 2SK758 H DRIVE
Q5413 DTA144ES
Q5050 2SC1740S BUFFER
Q5051 DTA144ES RELAY SW
Q5410 DTA144ES
Q5411 DTA144ES
Q5412 DTC144ES
Q5010 DTA144ES H. LINEAR SW
Q5011 DTC144ES H. LINEAR SW
Q5033 2SC1740S RELAY DRIVE
Q5034 2SA1401A LINEAR DRIVE
Q5035 2SA1401A LINEAR DRIVE
Q5036 2SK1642 S-CURVE
Q5037 2SK1642 S-CURVE CAPA SW
Q5038 2SK1642 S-CURVE CAPA SW
Q5039 2SK1642 S-CURVE CAPA SW
Q5040 2SK1642 S-CURVE CAPA SW
Q5057 2SK1642 S-CURVE CAPA SW
Q5056 DTC114ES SCAN SELECT
Q5041 2SC2336B 170V REG
Q5042 2SC1473 170V REG
Q5043 2SA933S ABL PROTECTOR
Q5044 2SA933S VIDEO +B PROTECTOR
Q5047 2SC1740S SPOT KILLER
Q5046 2SC1473 SPOT KILLER
Q5048 2SA933S SPOT KILLER
Q5052 2SA933S RASTER PROTECTOR
T5001 FBT
T5002
T5003
T5004
T5005
T5006
T5007
TP5001 PROTECT CHECK
TP2001
RL5002
ANODE
FOCUS
TO R5339
SCREEN
LIMITTER CHECK POINT CK
TO V-CRT PWB X
TO H-OUT PWB DH
TO uCOM/V PWB EA
TO H-OUT PWB HA
TO H-OUT PWB HB
TO H-OUT PWB HF
TO H-OUT PWB HC
TO uCOM/V PWB EF
TO DC-PS PWB DF
TO DEF-SUB PWB DS
TO DEF-SUB PWB DU
TO RGB I/O PWB RD
V. PARABOLA-1
V. PARABOLA-2
H. PULSE
SIDE-PIN
H. POSI WAVE
HV-PROTECTOR
HF-DC
185V
HEATER
170V
DYIN 9-2-1D
DYOUT 9-2-1E
15V 9-2-1E
MODE1 9-2-1E
12VH 9-2-1E
I12V 9-2-1E
PARA1 9-2-1E
HPV 9-2-1E
MODE2 9-2-1E
1500V 9-2-1E
HPARA 9-2-1E
HPULSE 9-2-1E
PARA2 9-2-1E
FH-MODE1-3
FH-MODE1-4
FH-MODE1-5
12V(H)
FH-MODE1
12V(BACK)
AFC PULSE
-12V
FH-MODE5
How to read : □-□-□□
Address
Page
(EX) 1-1-1A
(Address)
Page

DEF/HV PWB PWC-3846
SCHEMATIC DIAGRAM 2/2


IC5402
BA6110
PARABOLA GAIN CTL
POSI IN
NEGA IN
BIAS
CTL
-VEE
VCA OUT
BUFFER IN
OUT
VEE
VR5401
30K-B
METAL
PARABOLA
GAIN CTL
Q5401
2SC1740S
LINEAR-SW
Q5402
DTA144ES
LINEAR-SW
ZD5401
RD3.9ESB2
D5401
1SS253
RL5401
L5401
Q5403
2SD401A
LINEAR-DRIVE
Q5404
2SD401A
LINEAR-DRIVE
IC5401
BA10324
D. LINEAR DRIVE
Q5405
2SA933S
GAIN CTL
IC5403
BA10324
WAVE SHAPE
Q5409
DTA144ES
GAIN-SW
Q5408
DTA144ES
GAIN-SW
Q5407
DTC144ES
GAIN-SW
Q5406
DTA144ES
GAIN-SW
D5405
1SS253
D5403
1SS253
D5404
1SS253
12V(H)
-12V
15V
PARABOLA
H-F/V
IC5301
BA6110
H. PARABOLA GAIN CTL
Q5302
2SC4710
AMP
Q5301
2SC4710
BUFFER
TP5301
FOCUS
TPFBT
TO FBT
Q5303
2SA933S
BUFFER
Q5305
2SC1740S
AMP
Q5304
2SA933S
BUFFER
Q5308
2SA933S
GAIN CTL
VR5302
10K-B
H. FOCUS
VR5301
50K-B METAL
V. FOCUS
IC5302
XRA10358
H. FOCUS CTL
ZD5301
ZD5302
D5301
D5302
D5303
D5304
D5305
1SS253
9-1-8D DYIN
9-1-8E DYOUT
9-1-8E 15V
9-1-8E MODE1
9-1-8E 12VH
9-1-8E I12V
9-1-8E PARA1
9-1-8E HFV
9-1-8E MODE2
9-1-8E 1500V
9-1-8E HPARA
9-1-8E HPULSE
9-1-8E PARA2

How to read : □–□–□□


Page
Address
(EX) 1-1-1A
1 2 3
A
B
(Address)
1-1
Page

DEF/HV PWB VOLTAGE

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC2001		
#1	0	Protector OFF
	25	Protector ON (HV PROTECTOR OPERATE)
#2	10	—
#3	8.6	Protecotr OFF
#4	0	—
#5	6.1	—
#6	6.1	—
#7	19.1	—
#8	28.1	—
IC5010		
#1	0	—
#2, #15, #16	5.2	—
#3	0	(STB)
#4	5.2	—
#5	7.7	OVER SCAN Mode
	0	UNDER SCAN Mode
#6	0	—
#7	14.8	—
#8	0	Over 42kHz (H)
	13.3	15.5~42kHz (H)
#9	0	Over 36.5kHz (H)
	14.1	15.5~36.5kHz (H)
#10	0	Over 34kHz (H)
	14.0	15.5~34kHz (H)
#11	0	Over 28kHz
	13.9	15.5kHz~21kHz (H)
#12	0	Over 21kHz
	13.9	15.5~21kHz (H)
#13	0.1	(DATA)
#14	4.9	(CLK)
IC5011		
#1	6.5~15.6	50kHz (WIDTH Min)~ 15.75kHz (WIDTH Max)
#2	8.7	—
#3	8.7	—
#4	0	—
#5, #6	15.5~20.5	50kHz (WIDTH Min)~ 15.75kHz (WIDTH Max)
#7	16.8~20.3	15.75kHz (WIDTH Max)~ 50kHz (WIDTH Min)
#8	28.2	—
IC5012		
#1	3.4~4.0	15.75~50kHz (H)
#2, #3	2.8~3.4	ditto
#4	0	—
#5, #6	2.8~3.4	15.75~50kHz (H)
#7	3.4~4.0	ditto
#8	14.8	—
IC5013		
#1	0	—
#2	13.7~14.4	50~15.75kHz (H)
#3	1.9~6.5	15.75~50kHz (H)
#4, #8	14.6	—
#5	9.7	—
#6, #7	0.8~2.5	15.75~50kHz (H)
IC5301		
#1	–1.0	—
#2	–1.0	—
#3	–10.6	—
#4	–10.7	—
#5	–11.8	—
#6, #7	–2.5~–0.8	15.75KHZ (WIDTH MIN)~ 50KHZ (WIDTH MAX)
#8	–2.5~–0.6	15.75KHZ (WIDTH Min)~ 50KHZ (WIDTH Max)
#9	12.1	—
IC5302		
#1, #5	2.4~9.5	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
#2, #3	5.6~6.4	ditto
#4	0	—
#6	2.3~9.6	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
#7	1.8~9.0	ditto
#8	12.1	—
IC5401		
#1	3.4	—
#2	2.8	—
#3, #14	2.8	—
#4	14.8	—
#5, #8	3.0	—
#6	3.0	—
#7	3.6	—
#9	3.0	—
#10	3.0	—
#11	0	—
#12	2.8	—
#13	2.8	—
IC5402		
#1	–1.1	—
#2	–1.1	—
#3	–10.7	—
#4	–10.7	—
#5	–11.8	—
#6, #7	–2.9~–0.8	15.75~50kHz (H)
#8	–2.8~–0.7	ditto
#9	12.1	—
IC5403		
#1, #2	–0.2	—
#3	–0.2	—
#4	14.7	—
#5	1.1~11.0	15.75~50kHz (H)
#6	1.1~11.1	ditto
#7	–9.9~10.1	ditto
#8	2.1~8.0	ditto
#9, #10	1.5~8.6	ditto
#11	–11.8	—
#12	–2.8~–0.7	15.75~50kHz (H)
#13, #14	–2.9~–0.8	ditto
IQ2001		
(E)	0	—
(C)	28.0	Protector OFF
(B)	0	ditto
Q2002		
(E)	28.0	Protector OFF
(C)	0	ditto
(B)	28.0	ditto
Q2003		
(E)	28.0	—
(C)	0	Protector OFF
(B)	28.0	ditto
Q2004		
(E)	0	—
(C)	6.4	Protector OFF
(B)	0	ditto
Q5015		
(E)	186	—
(C)	0	Protector OFF
(B)	0	ditto
Q5016		
(D0	186	—
(G)	44~174	15.75~50kHz (H)
(S)	41~167	ditto
Q5017		
(E)	2.6~21.5	50~15.75kHz (H)
(C)	28.1	—
(B)	1.9~21.3	50~15.75kHz (H)
Q5018		
(E)	2.6~21.5	50~15.75kHz (H)
(C)	0	—
(B)	1.9~21.3	50~15.75kHz (H)
Q5019		
(E)	0	—
(C)	12.5~7.4	15.75~50kHz (H)
(B)	0.1~0.4	ditto
Q5020		
(E)	12.1~7.4	15.75~50kHz (H)
(C)	27.5	—
(B)	12.5~7.4	15.75~50kHz (H)
Q5021		
(E)	12.1~7.4	15.75~50kHz (H)
(C)	0	—
(B)	12.6~7.6	15.75~50kHz (H)
Q5024		
(E)	21.9~8.0	15.75kHz (WIDTH Min)~ 50kHZ (WIDTH Max)
(C)	0	—
(B)	21.8~7.7	15.75KHZ (WIDTH Min)~ 50KHZ (WIDTH MAX)
Q5025		
(E)	21.9~8.0	15.75KHZ (WIDTHMin)~ 50KHZ (WIDTH Max)
(C)	0	—
(B)	21.8~7.7	15.75KHZ (WIDTH Min)~ 50KHZ (WIDTH Max)
Q5026		
(D)	186	—
(G)	0.1~147	15.75KHZ (WIDTH Min)~ 50KHZ (WIDTH Max)
(S)	0~137	ditto
Q5027		
(E)	27.0	—
(C)	19.7~25.9	50kHz (WIDTH Min)~ 15.75kHz (WIDTH Max)
(B)	26.5	—
Q5029		
(D)	—	—
(G)	6.1	—
(S)	0	—
Q5030		
(E)	6.1	—
(C)	26.9	—
(B)	6.3	—
Q5031		
(E)	6.1	—
(C)	0	—
(B)	6.3	—
Q5032		
(E)	0	—
(C)	0	15.5~21kHz (H)
	18.9	Over 21kHz (H)
(B)	0.7	15.7~21kHz (H)
	0	Over 21kHz (H)
Q5010		
(E)	14.7	—
(C)	0	15.5~34kHz (H)
	14.6	Over 34kHz (H)
(B)	14.4	15.5~34kHz (H)
	3.3	Over 34kHz (H)
Q5011		
(E)	0	—
(C)	2.8	15.75kHz (H. F/V)
	0	Over 34kHz (H)
(B)	0	15.5~34kHz (H)
	14.6	Over 34kHz (H)
Q5033		
(E)	0	—
(C)	14.7	15.5~34kHz (H)
	0	Over 34kHz (H)
(B)	0	15.5~34kHz (H)
	0.7	Over 34kHz (H)
Q5034		
(E)	2.8~3.4	15.75~50kHz (H)
(C)	9.0~8.0	ditto
(B)	3.4~4.0	ditto
Q5035		
(E)	2.8~3.4	15.75~50kHz (H)
(C)	9.0~7.9	ditto
(B)	3.4~4.0	ditto
Q5036		
(D)	0.3	15.5~21kHz (H)
	108	Over 21kHz (H)
(G)	13.2	15.5~21kHz (H)
	0	Over 21kHz (H)
(S)	0	—
Q5037		
(D)	0	15.5~28kHz (H)
	108	Over 28kHz (H)
(G)	14.0	15.5~28kHz (H)
	0	Over 28kHz (H)
(S)	0	—
Q5038		
(D)	0	15.5~34kHz (H)
	108	Over 34kHz (H)
(G)	14.0	15.5~34kHz (H)
	0	Over 34kHz (H)
(S)	0	—
Q5039		
(D)	0	15.5~36.5kHz (H)
	108	Over 36.5kHz (H)
(G)	14.0	15.5~34kHz (H)
	0	Over 36.5kHz (H)
(S)	0	—
Q5040		
(D)	0	15.5~42kHz (H)
	108	Over 42kHz (H)
(G)	13.4	15.5~42kHz (H)
	0	Over 42kHz (H)
(S)	0	—

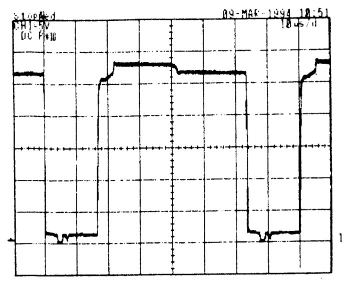
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q5041		
(E)	176	—
(C)	187	—
(B)	175	—
Q5042		
(E)	28.3	—
(C)	175	—
(B)	28.8	—
Q5043		
(E)	14.7	—
(C)	0	Protector OFF
(B)	14.6	ditto
Q5044		
(E)	14.7	—
(C)	0	Protector OFF
(B)	15.3	ditto
Q5046		
(E)	0	—
(C)	144	—
(B)	0	—
Q5047		
(E)	0	—
(C)	14.7	—
(B)	0	—
Q5048		
(E)	14.7	—
(C)	0	—
(B)	14.6	—
Q5050		
(E)	13.3	15.5~21kHz (H)
	0	Over 21kHz (H)
(C)	14.0	—
(B)	13.9	15.5~21kHz (H)
	0	Over 21kHz (H)
Q5051		
(E)	14.7	—
(C)	0	15.5~34kHz (H)
	14.7	Over 34kHz (H)
(B)	14.6	15.5~34kHz (H)
	3.3	Over 34kHz (H)
Q5052		
(E)	15.1	—
(C)	0	Protector OFF
(B)	15.7	ditto
Q5055		
(E)	0	—
(C)	13.7~14.4	50~15.75kHz (H)
(B)	–0.3~–0.1	ditto
Q5056		
(E)	0	—
(C)	0	OVER SCAN Mode
	13.7	UNDER SCAN Mode
(B)	7.8	OVER SCAN Mode
	0	UNDER SCAN Mode
Q5057		
(D)	0	15.5~42kHz or UNDER SCAN Mode
	107	Over 42kHz and OVER SCAN Mode
(G)	13.0	15.5~42kHz or UNDER SCAN Mode
	0	Over 42kHz and OVER SCAN Mode
(S)	0	—

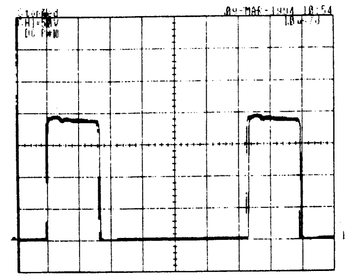
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q5301		
(E)	—	—
(C)	—	—
(B)	487	—
Q5302		
(E)	8.5	—
(C)	487	—
(B)	9.1	—
Q5303		
(E)	9.1	—
(C)	0	—
(B)	8.5	—
Q5304		
(E)	7.9	—
(C)	–11.8	—
(B)	7.3	—
Q5305		
(E)	–9.2	—
(C)	7.3	—
(B)	–8.6	—
Q5308		
(E)	2.3~9.6	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
(C)	–10.7	—
(B)	1.8~9.0	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
Q5401		
(E)	0	—
(C)	14.3	15.5~21kHz (H)
	0	Over 21kHz (H)
(B)	0	15.5~21kHz (H)
	0.7	Over 21kHz (H)
Q5402		
(E)	14.7	—
(C)	0	15.5~21kHz (H)
	14.7	Over 21kHz (H)
(B)	0	15.5~21kHz (H)
	3.3	Over 21kHz (H)
Q5403		
(E)	2.8	—
(C)	8.7	—
(B)	3.4	—
Q5404		
(E)	3.0	—
(C)	8.1	—
(B)	3.6	—
Q5405		
(E)	1.5~8.6	15.75~50kHz (H)
(C)	–10.7	—
(B)	0.9~8.0	15.75~50kHz (H)
Q5406		
(E)	12.0	—
(C)	12.0	15.5~34kHz (H)
	8.5	Over 34kHz (H)
(B)	6.0	15.5~34kHz (H)
	12.0	Over 34kHz (H)
Q5407		
(E)	0	—
(C)	0	15.5~34kHz (H)
	8.5	Over 34kHz (H)
(B)	12.0	15.5~34kHz (H)
	0	—

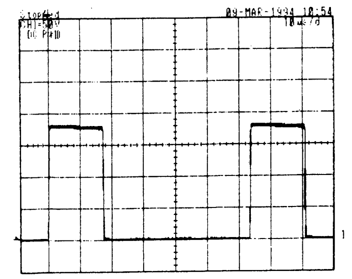
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q5408		
(E)	12.0	—
(C)	12.0	15.5~34kHz (H)
	0	Over 34kHz (H)
(B)	6.0	15.5~34kHz (H)
	12.0	Over 34kHz (H)
Q5409		
(E)	12.0	—
(C)	6.0	15.5~34kHz (H
	12.0	Over 34kHz (H)
(B)	11.9	15.5~34kHz (H)
	0.5	Over 34kHz (H)
Q5410		
(E)	12.0	—
(C)	2.8	15.75kHz (H. F/V)
	12.0	Over 34kHz (H)
(B)	11.9	15.5~34kHz (H)
	0.5	Over 34kHz (H)
Q5411		
(E)	12.0	—
(C)	2.8	15.75kHz (H. F/V)
	12.0	Over 21kHz (H)
(B)	11.9	15.75~21kHz (H)
	0.6	Over 21lHz (H)
Q5412		
(E)	0	—
(C)	2.8	15.75kHz (H. F/V)
	0	Over 21kHz (H)
(B)	0	15.75~21kHz (H)
	14.7	Over 21kHz (H)
Q5413		
(E)	14.7	—
(C)	0	15.75~21kHz (H)
	14.7	Over 21kHz (H)
(B)	14.6	15.75~21kHz (H)
	3.2	Over 21kHz (H)
CONNECTOR "DS"		
#1, #2	0	—
#3, #4	6.2	—
#5, #6	6.1~13.8	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
#7, #8	1.9~21.3	50~15.75kHz (H)
#9, #10	21.8~7.7	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
#11, #12	5.8~7.1	50~15.75kHz (H)
#13, #14	6.2	—
#15, #16	6.3	—
#17, #18	13.3	15.5~21kHz (H)
	0	Over 21kHz (H)
#19, #20	1.1~11.0	15.75~50kHz (H. F/V)
#21, #22	0	—
#23, #24	—	—
#25, #26	0	—
#27, #28	0	—

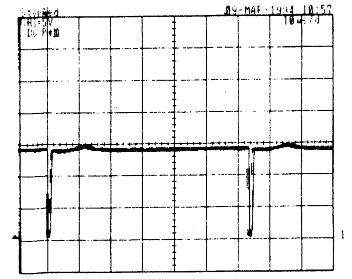
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "DU"		
#1, #2	0	—
#3, #4	1.1~6.7	WIDTH D/A Control
#5, #6	12.9	ABL OFF
#7, #8	0	—
#9, #10	27.7	—
#11, #12	14.7	—
#13, #14	12.0	
#15, #16	12.0	—
#17, #18	7.7	OVER SCAN Mode
	0	UNDER SCAN Mode
#19, #20	–11.8	—
#21, #22	0	—
#23, #24	0.1	(DATA)
#25, #26	5.0	(CLK)
#27, #28	0	(STB)
CONNECTOR "EA"		
#1	0	—
#2	–0.3	—
#3	0	—
#4	2.6~8.5	15.75kHz (WIDTH Min)~ 50kHz (WIDTH Max)
#5	—	—
#6	0	—
#7, #8	0	—
CONNECTOR "X"		
#1	177	—
#3	0.3	—
#5	6.2	—
#4, #6	0	—
CONNECTOR "DF"		
#1	188	—
#2	6.2	—
#3	0	—
CONNECTOR "EF"		
#1	187	—
#2	27.7	—
#3	0	—
CONNECTOR "HC"		
#1	14.0	15.5~34kHz (H)
	0	Over 34kHz (H)
#2	14.0	15.5~21kHz (H)
	18.7	Over 21kHz
#3	2.3	15.5~21kHz (H)
	20.5	Over 21kHz (H)

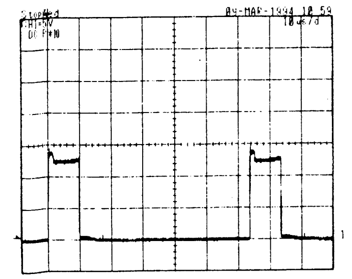
DEF/HV PWB WAVEFORM

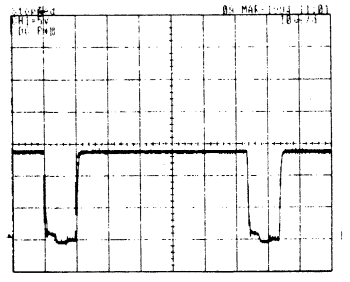

W1

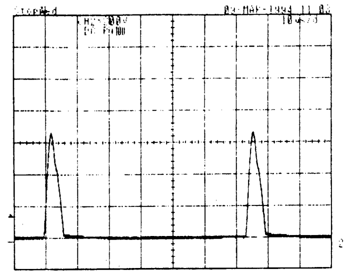

W2

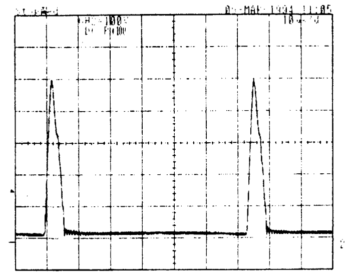

W3

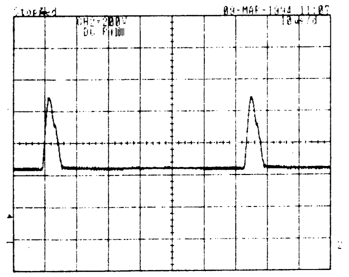

W4

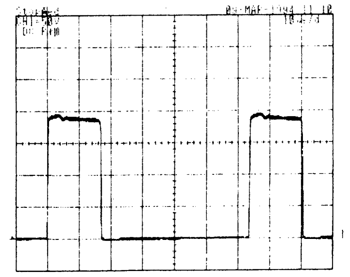

W5

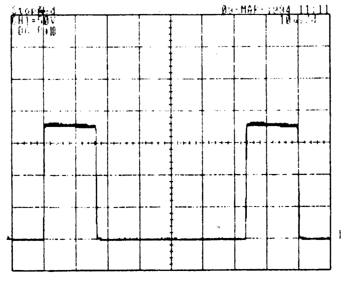

W6

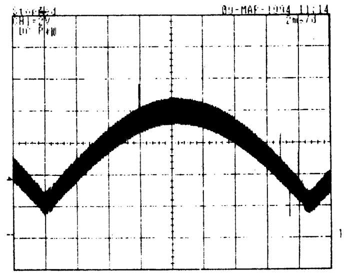

W7

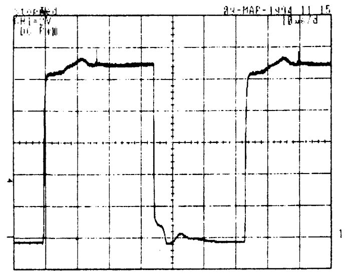

W8

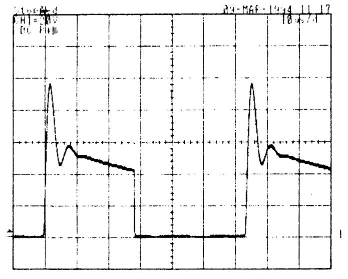

W9

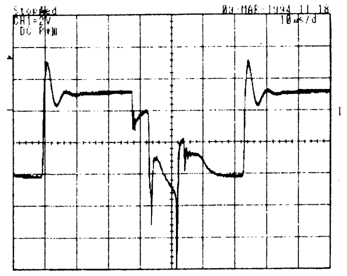

W10

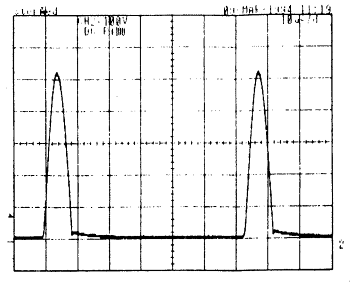

W11

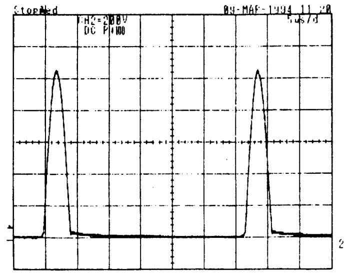

W12

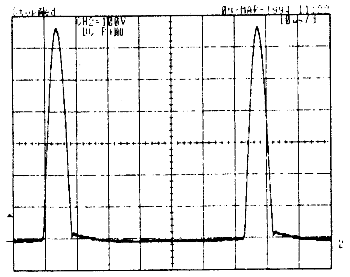

W13

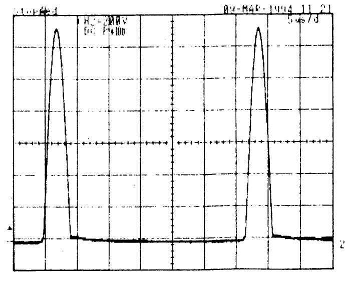

W14

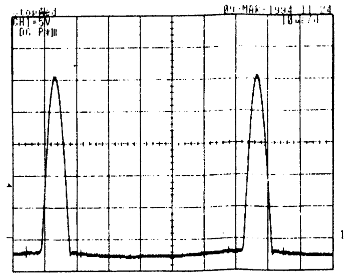

W15

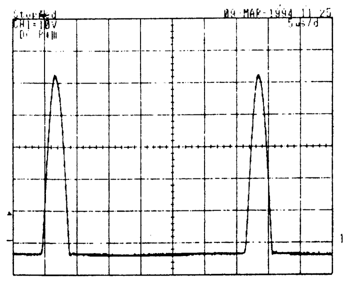

W16-1

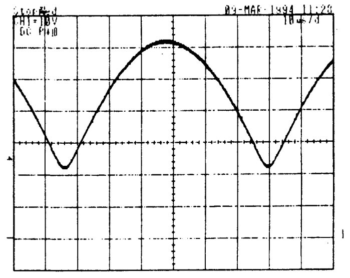

W16-2

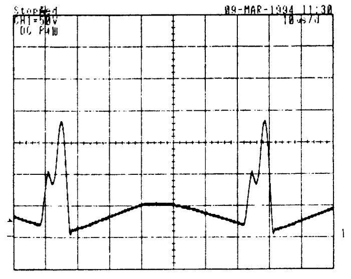

W17-1

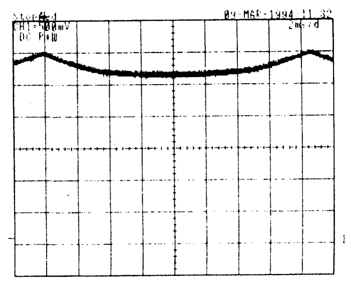

W17-2

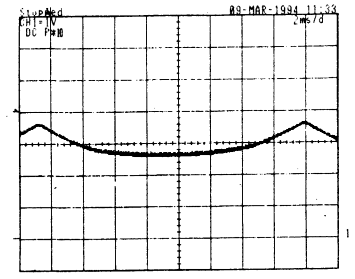

W18-1

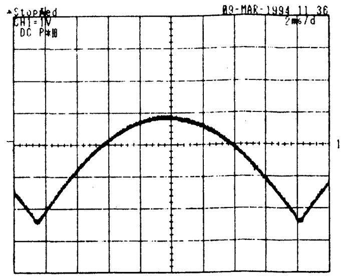

W18-2

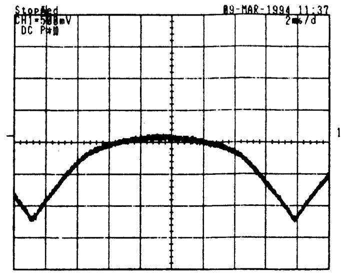

W19

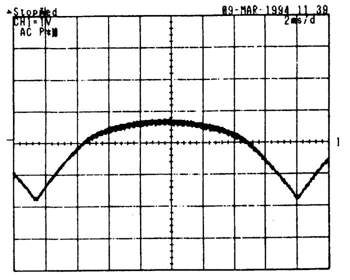

W20

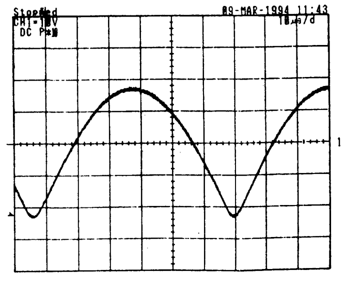

W21

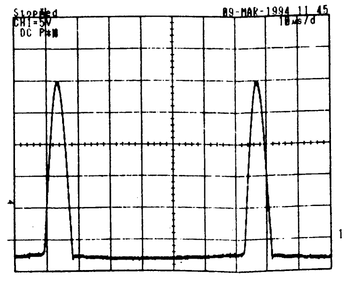

W22

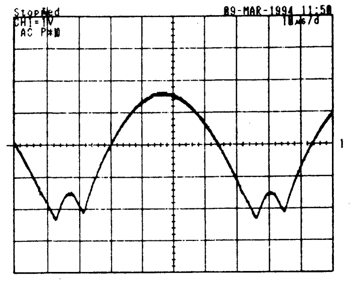

W23

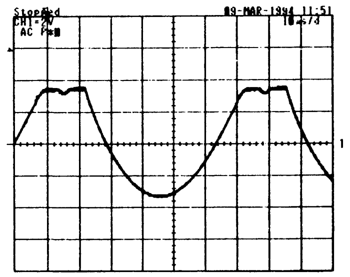

W24

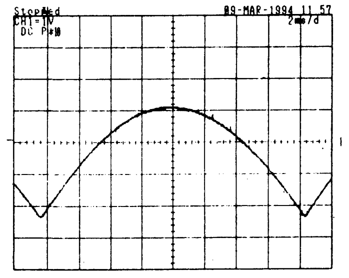

W25

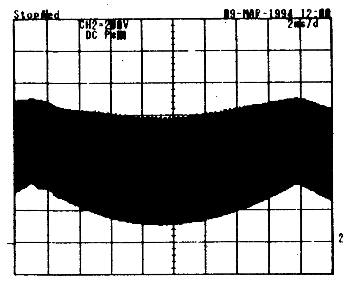

W26


W27

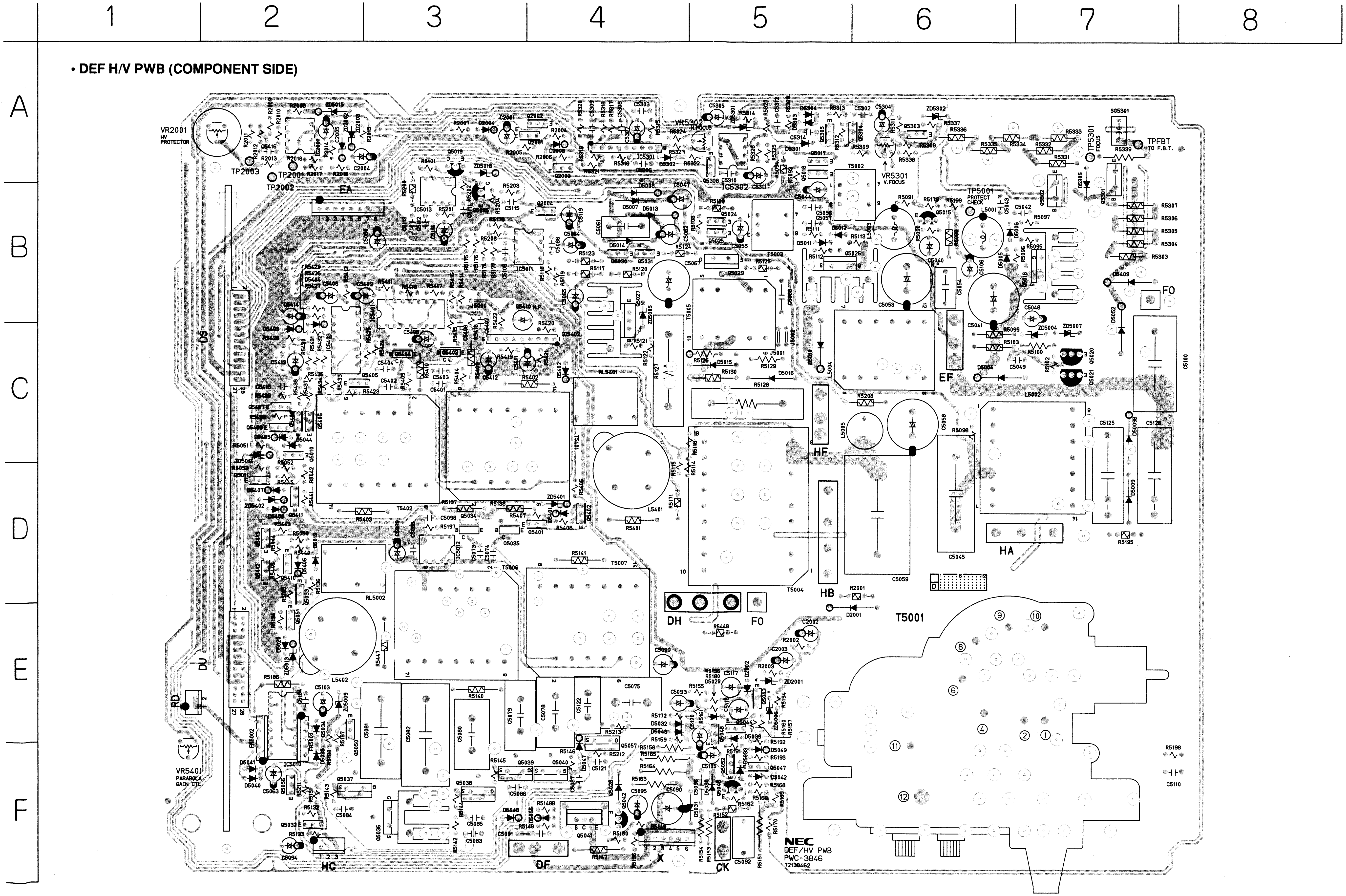

W28


W29

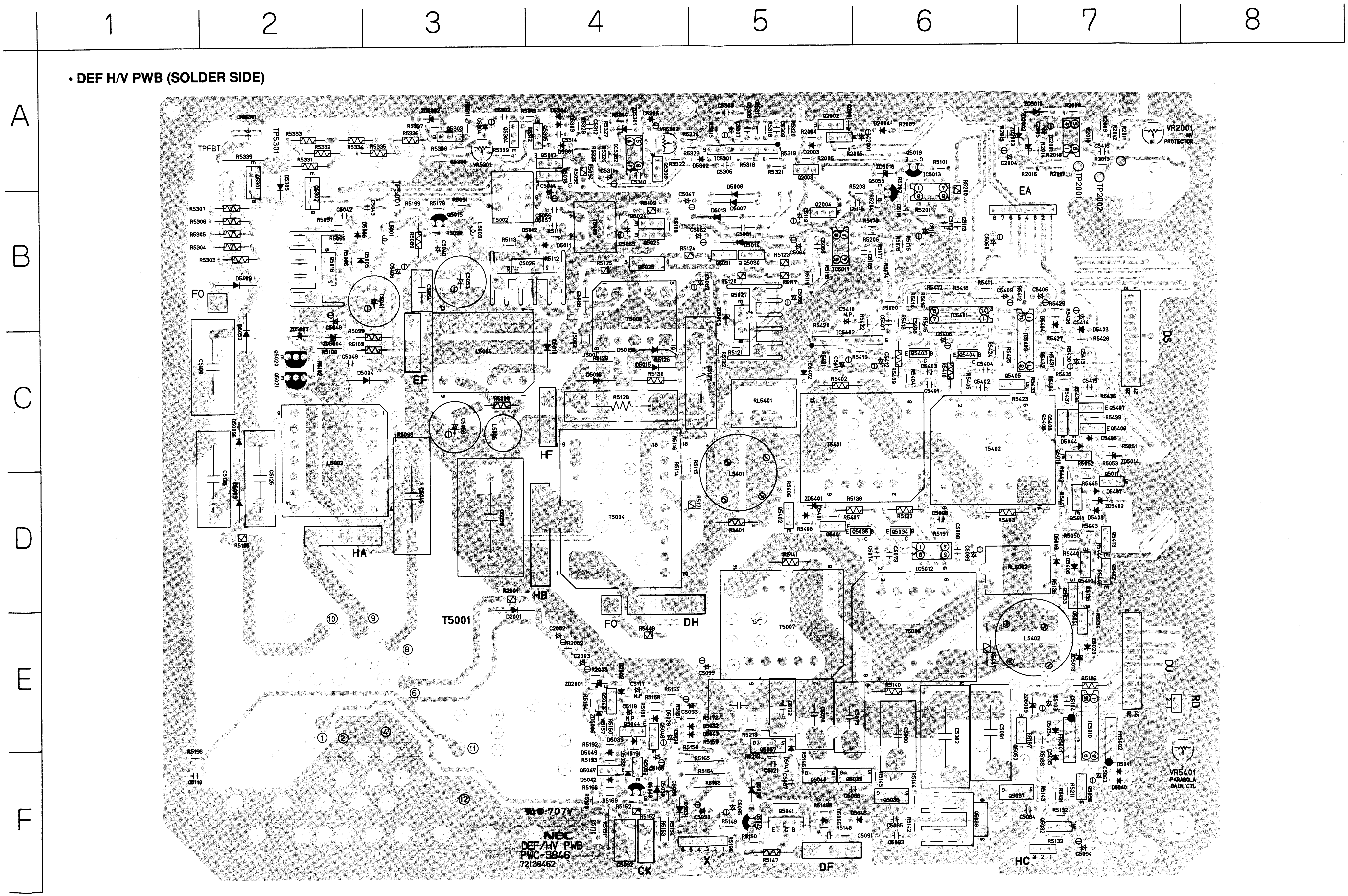

W30


W31

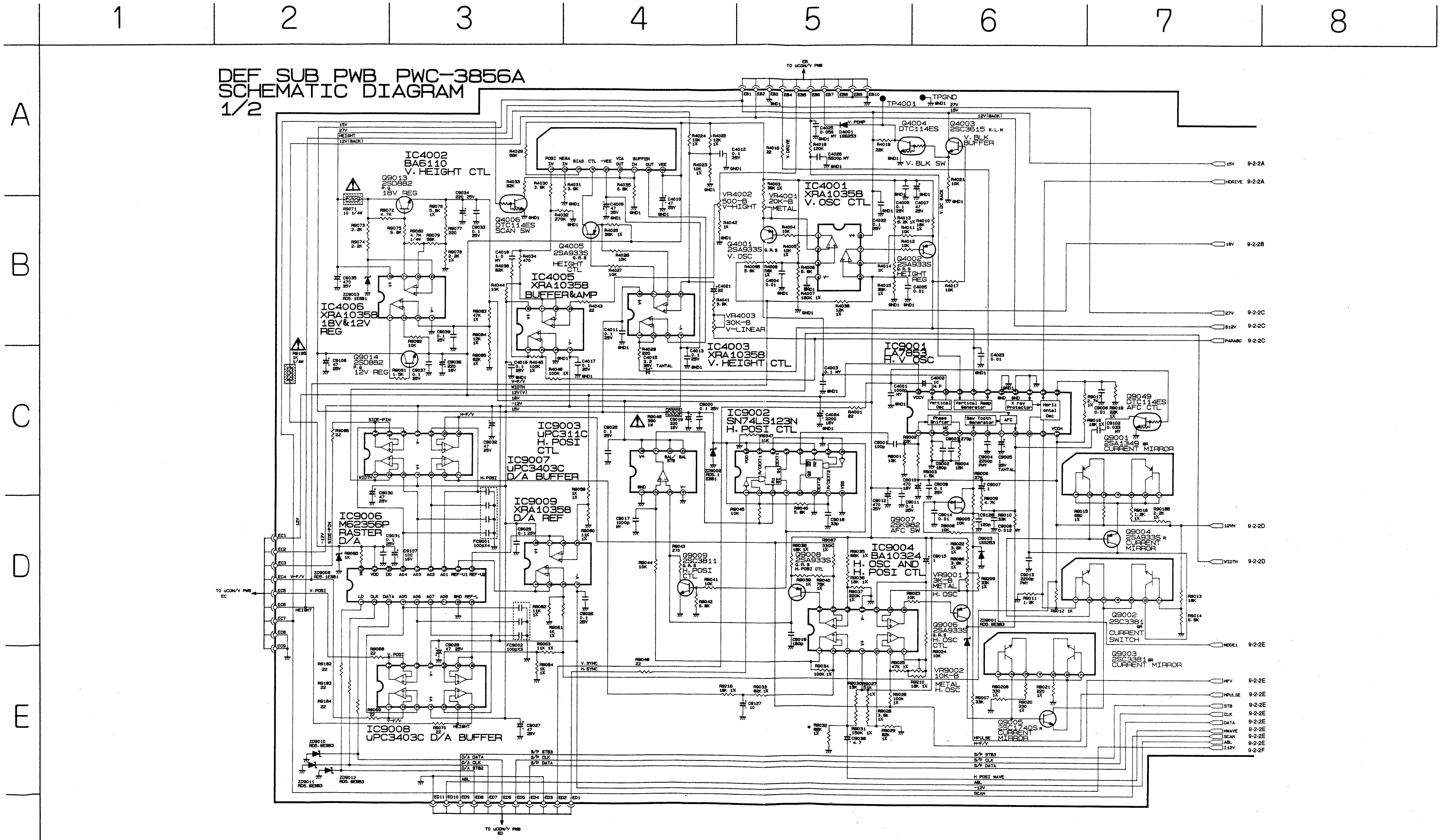
• DEF H/V PWB (COMPONENT SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
VR2001
HV PROTECTOR
TP2003
TP2001
TP2002
EA
DS
DU
RD
VR5401
PARABOLA GAIN CTL
VR5302
H. FOCUS
VR5301
V. FOCUS
IC5301
IC5302
IC5013
IC5011
IC5010
IC5401
IC5402
TP5001
PROTECT CHECK
TP5301
FOCUS
SG5301
TPFBT
TO F.B.T.
T5001
T5002
T5003
T5004
T5005
T5006
T5007
T5401
T5402
L5001
L5002
L5004
L5005
L5401
L5402
RL5001
RL5002
RL5401
EF
HF
HB
HA
FO
DH
DF
HC
CK
X
C5045
C5059
C5100
C5125
C5126
C5053
C5075
C5078
C5079
C5080
C5081
C5082
C5122
R2001
D2001
R2002
C2002
C2003
ZD2001
NEC
DEF/HV PWB
PWC-3846
72138462

• DEF H/V PWB (SOLDER SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TPFBT
TP5301
TP5001
F0
EF
HF
HA
HB
T5001
F0
DH
T5004
T5005
L5004
L5002
L5401
L5402
T5401
T5402
T5007
T5006
RL5401
RL5002
IC5401
IC5402
IC5012
IC5010
IC5301
IC5013
IC5011
EA
DS
DU
RD
VR2001
HV
PROTECTOR
TP2001
TP2002
VR5401
PARABOLA
GAIN CTL
VR5301
VR5302
CK
X
DF
HC
NEC
DEF/HV PWB
PWC-3846
72138462
707V

DEF SUB PWB PWC-3856A SCHEMATIC DIAGRAM 1/2

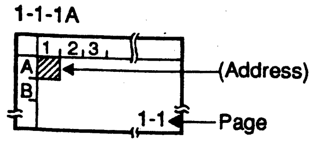

1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO uCOM/V PWB EB
EB1
EB2
EB3
EB4
EB5
EB6
EB7
EB8
EB9
EB10
TP4001
TPGND
IC4002 BA6110 V. HEIGHT CTL
Q9013 2SD882 18V REG
Q4006 DTC114ES SCAN SW
Q4005 2SA933S HEIGHT CTL
IC4005 XRA10358 BUFFER&AMP
IC4006 XRA10358 18V&12V REG
Q9014 2SD882 12V REG
VR4002 500-B V-HIGHT
Q4001 2SA933S V. OSC
VR4001 20K-B METAL
IC4001 XRA10358 V. OSC CTL
Q4004 DTC114ES V. BLK SW
Q4003 2SC3615 V. BLK BUFFER
Q4002 2SA933S HEIGHT REG
VR4003 30K-B V-LINEAR
IC4003 XRA10358 V. HEIGHT CTL
IC9001 LA7853 H. V OSC
Vertical Osc
Vertical Ramp Generator
X ray Protector
Horiz ontal Osc
Phase Shifter
Saw Tooth Generator
AFC
Q9049 DTC114ES AFC CTL
Q9001 2SA1349 CURRENT MIRROR
IC9003 uPC311C H. POSI CTL
IC9007 uPC3403C D/A BUFFER
IC9002 SN74LS123N H. POSI CTL
IC9009 XRA10358 D/A REF
IC9006 M62356P RASTER D/A
Q9007 2SK982 AFC SW
Q9009 2SC3811 H. POSI CTL
Q9008 2SA933S H. POSI CTL
IC9004 BA10324 H. OSC AND H. POSI CTL
VR9001 3K-B METAL H. OSC
Q9006 2SA933S H. OSC CTL
VR9002 10K-B METAL H. OSC
Q9004 2SA933S CURRENT MIRROR
Q9002 2SC3381 CURRENT SWITCH
Q9003 2SC3381 CURRENT MIRROR
Q9005 2SC1740S CURRENT MIRROR
IC9008 uPC3403C D/A BUFFER
TO uCOM/V PWB EC
EC1
EC2
EC3
EC4
EC5
EC6
EC7
EC8
EC9
ED11
ED10
ED9
ED8
ED7
ED6
ED5
ED4
ED3
ED2
ED1
TO uCOM/V PWB ED
15V 9-2-2A
HDRIVE 9-2-2A
18V 9-2-2B
27V 9-2-2C
S12V 9-2-2C
PARABO 9-2-2C
12VH 9-2-2D
WIDTH 9-2-2D
MODE1 9-2-2E
HFV 9-2-2E
HPULSE 9-2-2E
STB 9-2-2E
CLK 9-2-2E
DATA 9-2-2E
HWAVE 9-2-2E
SCAN 9-2-2E
ABL 9-2-2E
I12V 9-2-2F

How to read : □-□-□□

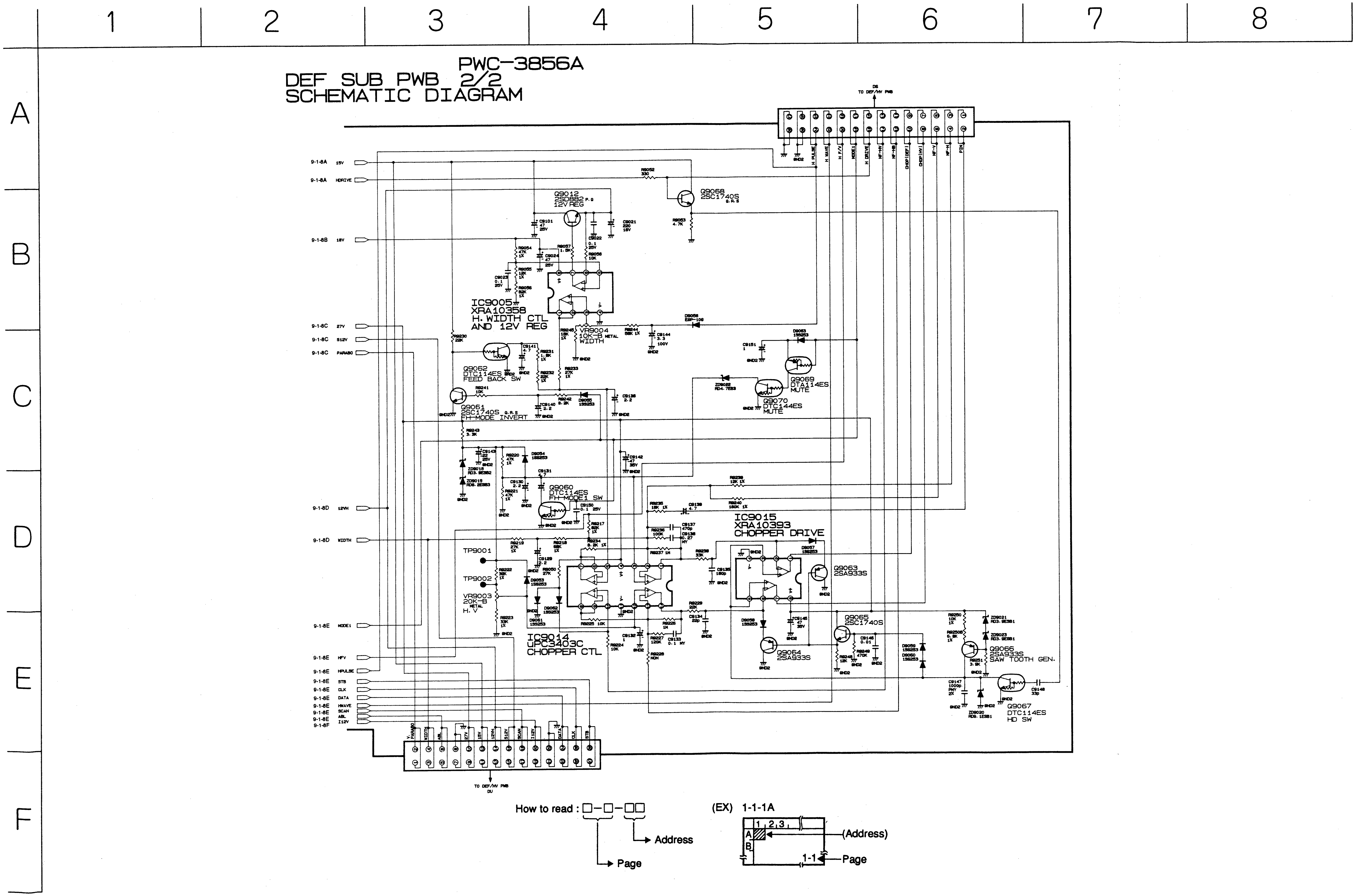
Address

Page

(EX) 1-1-1A


1 2 3
A
B
(Address)
1-1
Page

PWC-3856A
DEF SUB PWB 2/2
SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
F
DS
TO DEF/HV PWB
9-1-8A 15V
9-1-8A HDRIVE
9-1-8B 18V
9-1-8C 27V
9-1-8C S12V
9-1-8C PARABO
9-1-8D 12VH
9-1-8D WIDTH
9-1-8E MODE1
9-1-8E HFV
9-1-8E HPULSE
9-1-8E STB
9-1-8E CLK
9-1-8E DATA
9-1-8E HWAVE
9-1-8E SCAN
9-1-8E ABL
9-1-8F I12V
Q9012
2SD882 P.Q
12V REG
Q9068
2SC1740S Q.R.S
IC9005
XRA10358
H. WIDTH CTL
AND 12V REG
VR9004
10K-B METAL
WIDTH
Q9062
DTC114ES
FEED BACK SW
Q9061
2SC1740S Q.R.S
FH-MODE INVERT
Q9069
DTA114ES
MUTE
Q9070
DTC144ES
MUTE
Q9050
DTC114ES
FH-MODE1 SW
IC9015
XRA10393
CHOPPER DRIVE
Q9063
2SA933S
TP9001
TP9002
VR9003
20K-B
METAL
H. V
IC9014
UPC3403C
CHOPPER CTL
Q9065
2SC1740S
Q9064
2SA933S
Q9066
2SA933S
SAW TOOTH GEN.
Q9067
DTC114ES
HD SW
TO DEF/HV PWB
DU

How to read : □-□-□□

Page

Address

(EX) 1-1-1A

1, 2, 3,

A

B

(Address)

1-1

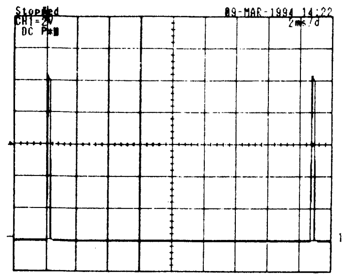
Page

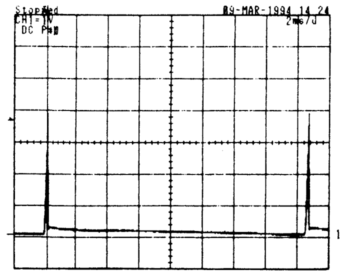
DEF SUB PWB VOLTAGE

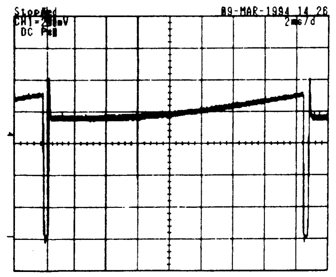
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC9001		
#1	4.3	—
#2	7.6	—
#3	0	—
#4	8.8	—
#5	0.1	—
#6	5.3~3.7	f_H: 15.5k~50.0kHz
#7	4.7~3.1	f_H: 15.5k~50.0kHz
#8	7.0	—
#9	6.0	—
#10	5.5	—
#11	12.1	—
#12	6.2	—
#13	6.3	—
#14, #15, #16	0	—
#17	0.8	—
#18	3.6	—
#19	0.2	—
#20	5.7	—
#21	5.9	—
#22	12.1	—
IC9002		
#1	4.8	—
#2, #11, #16	5.1	—
#3	4.9	—
#4	2.4~3.6	H POSITION LEFT~RIGHT
#5	0.1	—
#6, #8, #9, #14	0	—
#7	1.9	—
#10	2.4~3.6	H POSITION LEFT~RIGHT
#12	4.5	—
#13	1.6~0.2	H POSITION LEFT~RIGHT
#15	0.2	—
IC9003		
#1, #4	0	—
#2	10.9~0.9	H POSITION LEFT~RIGHT
#5, #6, #8	18.1	—
#7	4.9	—
IC9004		
#1	10.9~0.9	H POSITION LEFT~RIGHT
#2, #3	6.0	—
#4	18.1	—
#5, #6	10.8	—
#7, #9, #10	15.7~10.8	f_H: 15.5k~50.0kHz
#8	15.1~10.1	f_H: 15.5k~50.0kHz
#11	0	—
#12, #13, #14	15.2~12.9	f_H: 15.5k~50.0kHz
IC9005		
#1, #2, #3	6.3~7.1	f_H: 15.5k~21kHz, Width MIN~MAX
	11.3~13.1	f_H: 21k~50kHz, Width MIN~MAX
#4	0	—
#5, #6	12.0	—
#7	13.2	—
#8	18.1	—
IC9006		
#1	0	—
#2	4.7	—
#3	0.2	—
#4	11.0~1.0	f_V: 40~120Hz
#5	11.0~1.0	V POSITION DOWN~VP
#6	1.0~11.0	V HEIGHT MIN~MAX
#7	11.0	—
#8	0	—
#9	1.0	—
#10, #11	11.0	—
#12	1.0~11.0	f_H: 15.5k~50.0kHz
#13	1.0~11.0	H POSITION LEFT~RIGHT
#14	11.0~1.0	H WIDTH MIN~MAX
#15	11.0~1.0	SIDE PIN MIN~MAX
#16	0.2	—
#17, #18	5.0	
IC9007		
#1, #2, #3	11.0~1.0	H WIDTH MIN~MAX
#4	14.8	—
#5, #6, #7	1.0~11.0	H POSITION LEFT~RIGHT
#8, #9, #10	1.0~11.0	f_H: 15.5~50.0kHz
#12, #13, #14	11.0~1.0	SIDE PIN MIN~MAX
IC9008		
#1, #2, #3	11.0~1.0	f_V: 40~120Hz
#4	14.8	—
#5, #6, #7	1.0~11.0	V HEIGHT MIN MAX
#8, #9, #10	1.0	—
#11	−11.7	—
#12, #13, #14	11.0~1.0	V POSITION MIN MAX
IC9009		
#1, #2, #3	11.0	—
#4	−11.7	—
#5, #6, #7	11.0	—
#8	14.8	—
IC9014		
#1	4.9~5.7	f_H: 15.5k~21kHz, Width MIN~MAX
	3.0~4.8	f_H: 21k~50kHz, Width MIN~MAX
#2, #3	6.2	—
#4	28.0	—
#5, #6, #7	6.3~7.1	f_H: 15.5k~21kHz, Width MIN~MAX
	5.3~6.1	f_H: 21k~50kHz, Width MIN~MAX
#8, #9, #10	6.3	—
#11	0	—
#12, #13	6.2	—
#14	2.3~6.1	f_H: 15.5kHz Cut off~ f_H: 50kHz Full beam
IC9015		
#1	21.5~6.7	f_H: 15.5kHz Width MIN~ f_H: 50kHz Width MAX
#2	4.9~5.7	f_H: 15.5k~21kHz, Width MIN~MAX
	3.8~4.9	f_H: 21k~50kHz, Width MIN~MAX
#3, #5	6.6~2.8	f_H: 15.5k~50.0kHz
#4	0	—
#6	2.5~5.0	f_H: 15.5kHz Cut off~ f_H: 50kHz Full beam
#7	21.9~7.6	f_H: 15.5kHz Cut off~ f_H: 50kHz Full beam
#8	28.1	—
IC4001		
#1	10.9~9.5	f_V: 40~120Hz
#2, #3	11.4~10.1	f_V: 40~120Hz
#4	0	—
#5, #6	10.3~6.4	f_V: 40~120Hz
#7	9.7~5.8	f_V: 40~120Hz
#8	14.6	—
IC4002		
#1, #2	−0.2	—
#3	−10.5	—
#4	−10.6	—
#5	−11.7	—
#6, #7, #8	0	—
#9	12.1	—
IC4003		
#1, #2, #3	0	—
#4	−11.7	—
#5, #6	3.9~7.5	V HEIGHT MIN~MAX
#7	3.3~6.9	V HEIGHT MIN~MAX
#8	14.8	—
IC4005		
#1, #2, #3	0	—
#4	−11.7	—
#5, #6, #7	0	—
#8	14.8	—
IC4006		
#1	13.1	—
#2, #3	12.0	—
#4	0	—
#5, #6	5.0	—
#7	5.5	—
#8	28.1	—
Q9001		
#1, #6, #7	11.1~10.0	f_H: 15.5k~50.0kHz
#2	10.5~9.4	f_H: 15.5k~50.0kHz
#3, #5	11.6~10.6	f_H: 15.5k~50.0kHz
#4	—	—
Q9002		
#1	5.5	—
#2	10.5~9.4	f_H: 15.5k~50.0kHz
#3, #5	5.4	—
#4	—	—
#6	6.0	—
#7	3.3	—
Q9003		
#1, #6, #7	0.8~1.2	f_H: 15.5k~50kHz
#2	1.4~1.9	f_H: 15.5k~50kHz
#3, #5	0.2~0.6	
#4	—	—
Q9004		
(E)	11.1~10.0	f_H: 15.5k~50kHz
(C)	6.0	—
(B)	10.5~9.4	f_H: 15.5k~50kHz
Q9005		
(E)	0.8~1.2	f_H: 15.5k~50kHz
(C)	5.4	—
(B)	1.4~1.9	f_H: 15.5k~50kHz
Q9006		
(E)	15.7~10.8	f_H: 15.5k~50kHz
(C)	7.1~7.6	f_H: 15.5k~50kHz
(B)	15.2~10.1	f_H: 15.5k~50kHz
Q9007		
(S)	0.2	—
(D)	0.1	f_H: 15.5k~21kHz
	1.3	f_H: 21k~50kHz
(G)	13.3	f_H: 15.5k~21kHz
	0	f_H: 21k~50kHz
Q9008		
(E)	15.8~13.5	f_H: 15.5k~50kHz
(C)	0.1~3.2	f_H: 15.5kHz RIGHT~ f_H: 50.0kHz LEFT
(B)	15.2~12.9	f_H: 15.5k~50kHz
Q9009		
(E)	0	—
(C)	3.1~0.1	H POSITION LEFT~RIGHT
(B)	0.4~0.6	H POSITION LEFT~RIGHT
Q9012		
(E)	12.1	—
(C)	14.8	—
(B)	12.7	—
Q9013		
(E)	18.1	—
(C)	27.9	—
(B)	18.7	—
Q9014		
(E)	12.1	—
(C)	14.8	—
(B)	12.7	—
Q9049		
(E)	0	—
(C)	0	—
(B)	0.2	—
Q9060		
(E)	0	—
(C)	0	f_H: 15.5k~21kHz
	—	f_H: 21k~50kHz
(B)	13.3	f_H: 15.5k~21kHz
	0	f_H: 21k~50kHz
Q9061		
(E)	0	—
(C)	0	f_H: 15.5k~21kHz
	4.9	f_H: 21k~50kHz
(B)	0.7	f_H: 15.5k~21kHz
	0.1	f_H: 21k~50kHz

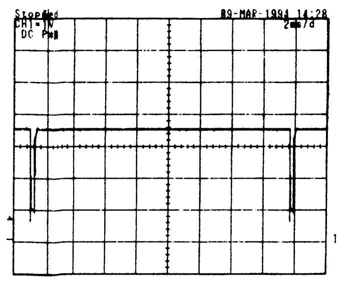
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q9062		
(E)	0	—
(C)	6.3~7.1	f_H: 15.5k~21kHz, Width MIN~MAX
	0	f_H: 21k~50kHz
(B)	0	f_H: 15.5k~21kHz
	4.9	f_H: 21k~50kHz
Q9063		
(E)	—	—
(C)	0	—
(B)	7.0~4.7	f_H: 15.5k~50.0kHz
Q9064		
(E)	—	—
(C)	0	—
(B)	7.0~4.7	f_H: 15.5k~50.0kHz
Q9065		
(E)	7.0~4.7	f_H: 15.5k~50.0kHz
(C)	28.0	—
(B)	7.6~5.3	f_H: 15.5k~50.0kHz
Q9066		
(E)	0	—
(C)	6.6~2.8	f_H: 15.5k~50.0kHz
(B)	20.1	—
Q9067		
(E)	0	—
(C)	6.6~2.8	f_H: 15.5k~50.0kHz
(B)	0	—
Q9068		
(E)	6.1	—
(C)	14.8	—
(B)	6.3	—
Q9069		
(E)	13.3	f_H: 15.5k~21kHz
	0	f_H: 21k~50kHz
(C)	0	—
(B)	13.3	f_H: 15.5k~21kHz
	0	f_H: 21k~50kHz
Q9070		
(E)	0	—
(C)	—	—
(B)	0	—
Q4001		
(E)	11.4~10.1	f_V: 40~120Hz
(C)	5.7	—
(B)	10.9~9.5	f_H: 40~120Hz
Q4002		
(E)	10.3~6.4	f_H: 40~120Hz
(C)	3.5	—
(B)	9.7~5.8	f_H: 40~120Hz
Q4003		
(E)	3.1	—
(C)	14.6	—
(B)	3.6	—
Q4004		
(E)	0	—
(C)	0.2	—
(B)	3.1	—
Q4005		
(E)	3.9~7.4	V HEIGHT MIN~MAX
(C)	−10.6	—
(B)	3.4~6.9	V HEIGHT MIN~MAX
Q4006		
(E)	0	—
(C)	0	—
(B)	7.6	SCAN SELECT: OVER
	0	SCAN SELECT: UNDER
CONNECTOR "EB"		
#1	14.8	—
#2	12.1	—
#3, #8, #9	0	—
#10	0	—
#4	0.8	—
#5	0	—
#6	16.8	—
#7	0.2	
CONNECTOR "EC"		
#1	12.1	—
#2	−11.7	—
#3	11.1~1.1	SIDE PIN MIN~MAX
#4	11.1~1.1	f_V: 40~120Hz
#5	11.1~1.1	V POSITION DOWN~UP
#6	1.1~11.1	V HEIGHT MIN~MAX
#7	7.6	SCAN SELECT: OVER
	0	SCAN SELECT: UNDER
#8, #9	0	—
CONNECTOR "ED"		
#1	4.9	—
#2	0.1	—
#3	0	—
#4	0.1	—
#5	4.9	—
#6	0.2	—
#7	4.7	—
#8, #9	0	—
#10	7.8~12.9	Full beam~Cut off
#11	0	—
CONNECTOR "DS"		
#1, #2	−0.2	—
#3, #4	6.2	—
#5, #6	6.1	—
#7, #8	21.9~7.6	f_H: 15.5kHz Cut off~ f_H: 50kHz Full Beam
#9, #10	21.5~6.7	f_H: 15.5kHz, Width MIN~ f_H: 50kHz Width MAX
#11, #12	6.2	—
CONNECTOR "DS"		
#13, #14	6.3	—
#15, #16	6.3	—
#17, #18	13.3	f_H: 15.5k~21kHz
	0	f_H: 21k~50.0kHz
#19, #20	1.0~11.0	f_H: 15.5k~50.0kHz
#21, #22	0	—
#23, #24	—	—
#25, #26, #27, #28	0	—
CONNECTOR "DU"		
#1, #2	−0.1	—
#3, #4	11.0~1.0	H Width MIN~MAX
#5, #6	7.8~12.9	Cut off~Full Beam
#7, #8, #21	0	—
#22	0	—
#9, #10	28.0	—
#11, #12	14.7	—
#13, #14	12.1	—
#15, #16	12.1	—
#17, #18	−7.6	SCAN SELECT: OVER
	0	SCAN SELECT: UNDER
#19, #20	−11.7	—
#23, #24	0.1	—
#25, #26	4.8	—
#27, #28	0	—

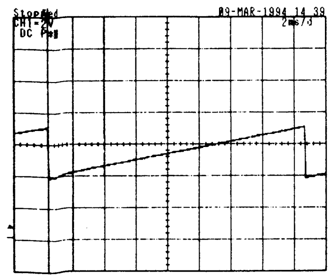
DEF SUB PWB WAVEFORM

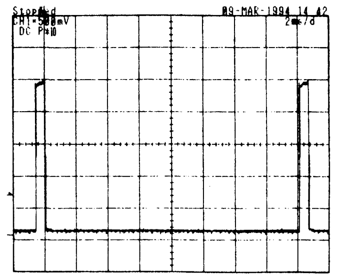

W1

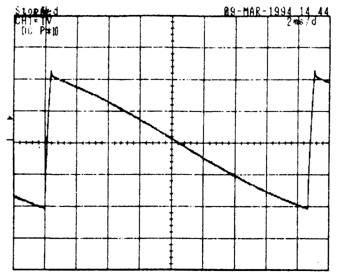

W2

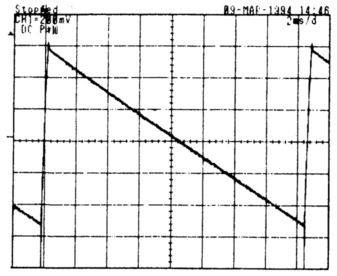

W3

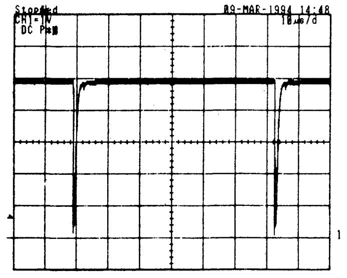

W4

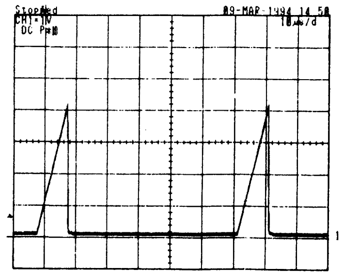

W5

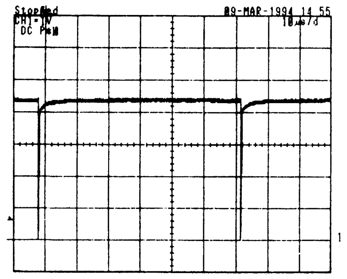

W6

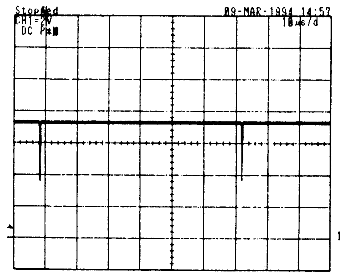

W7

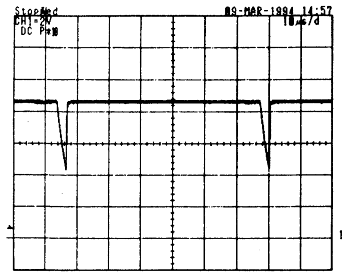

W8

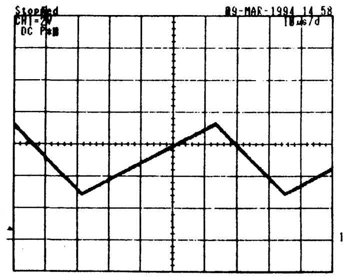

W9

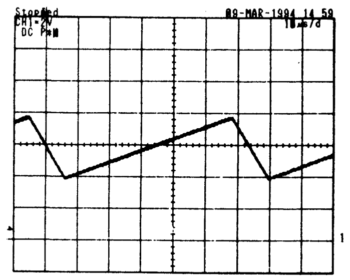

W10

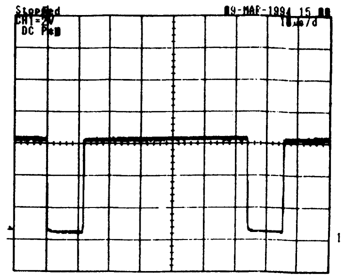

W11

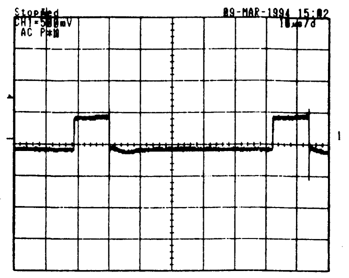

W12

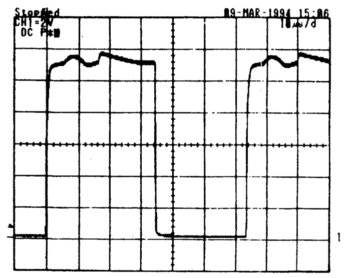

W13

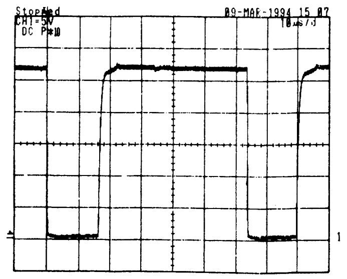

W14

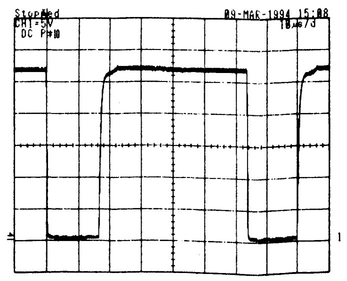

W15

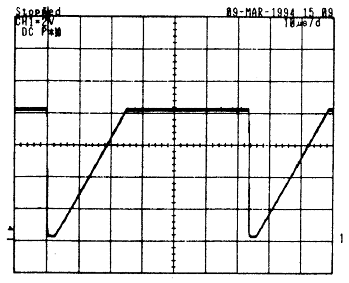

W16

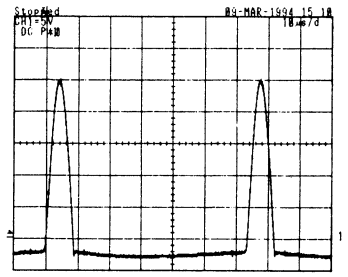

W17

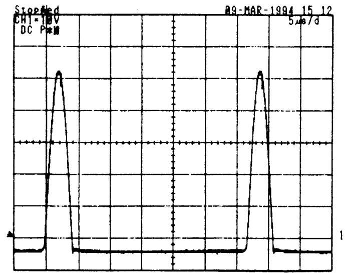

W18


W19

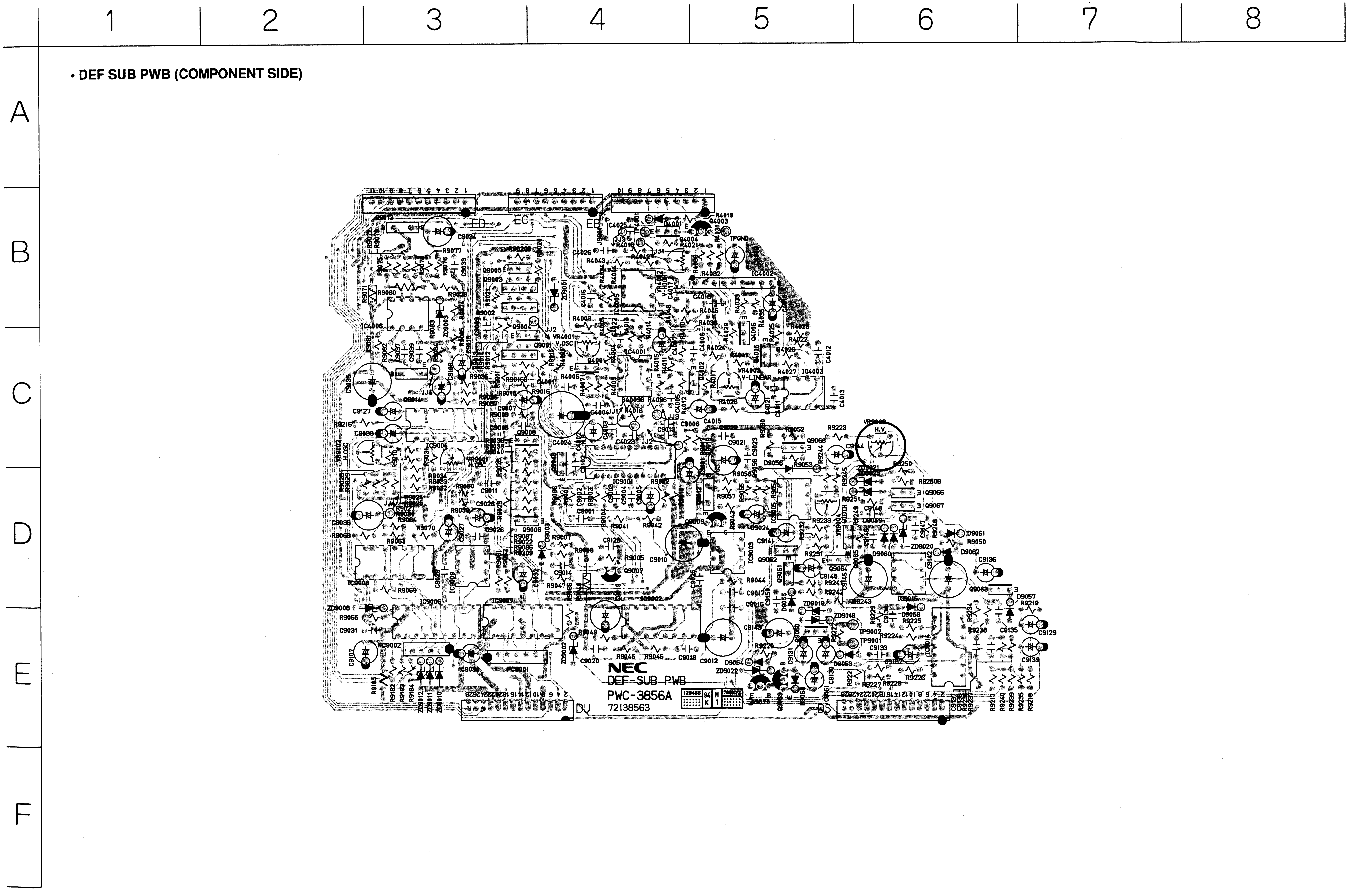

W20


W21

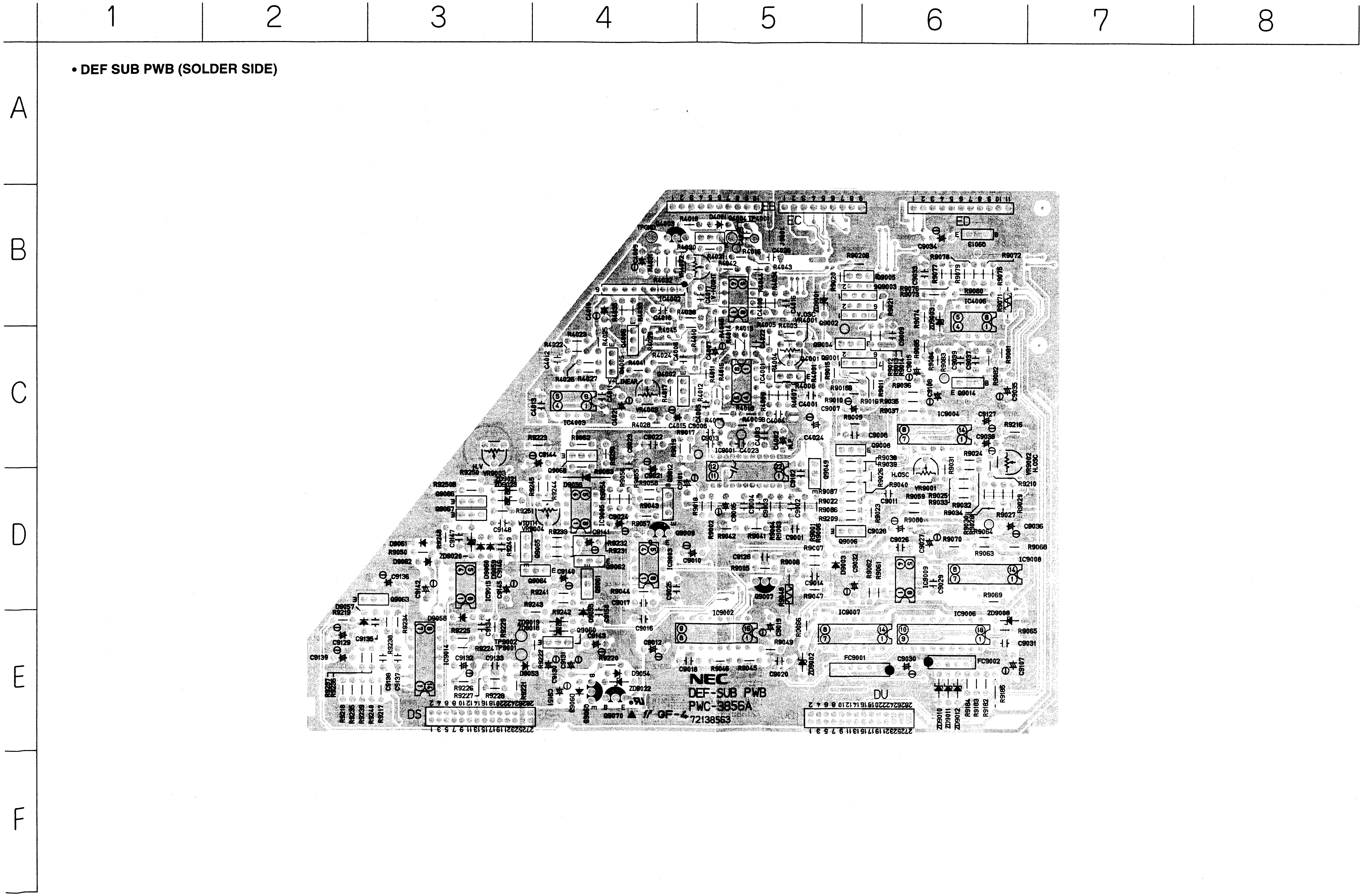

W22-1 Video


W22-2 VGA

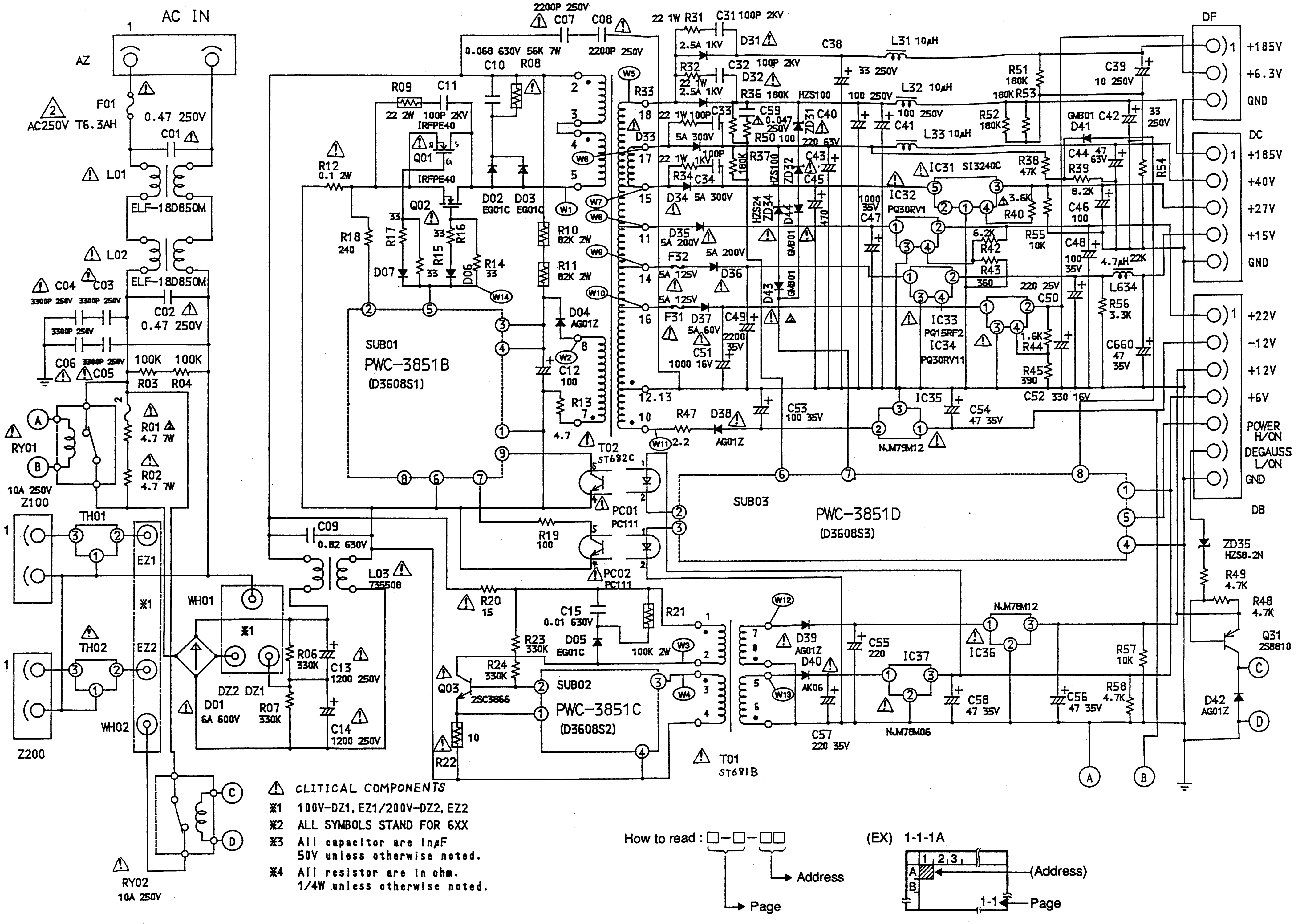
• DEF SUB PWB (COMPONENT SIDE)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
DEF-SUB PWB
PWC-3856A
72138563
VR4001 V.OSC
VR4003 V-LINEAR
VR9001 H.OSC
VR9000 H.V
IC4001
IC4002
IC4003
IC9004
IC9005
IC9006
IC9007
IC9008
IC9014
IC9015
DU
DS
EB
EC
ED
TPGND
TP9001
TP9002

• **DEF SUB PWB (SOLDER SIDE)**


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NEC
DEF-SUB PWB
PWC-3856A
72138563
DS
DU
EB
EC
ED
H.OSC
V.OSC
WIDTH
LINEAR
H.V

MAIN POWER SUPPLY PWB (PWC-3851A)
SCHEMATIC DIAGRAM


AC IN
AZ
1
F01
AC250V T6.3AH
0.47 250V
C01
L01
ELF-18D850M
L02
ELF-18D850M
C04
C03
3300P 250V
C02
0.47 250V
C06
C05
100K
100K
R03
R04
RY01
R01
4.7 7W
R02
4.7 7W
10A 250V
Z100
TH01
EZ1
TH02
EZ2
Z200
WH01
WH02
※1
DZ2 DZ1
D01
6A 600V
R06
330K
C13
1200 250V
R07
330K
C14
1200 250V
C09
0.82 630V
L03
735508
RY02
10A 250V
2200P 250V
C07
C08
0.068 630V
56K 7W
2200P 250V
C10
R08
R09
C11
22 2W
100P 2KV
IRFPE40
Q01
Q02
R12
0.1 2W
R18
240
R17
R15
R16
33
R14
D07
D06
D02
D03
EG01C
R10
82K 2W
R11
82K 2W
W1
W14
D04
AG01Z
W2
C12
100
R13
4.7
SUB01
PWC-3851B
(D3608S1)
T02
ST682C
PC01
PC111
R19
100
PC02
PC111
SUB03
PWC-3851D
(D3608S3)
R20
15
C15
0.01 630V
R21
D05
EG01C
R23
330K
100K 2W
W3
R24
330K
Q03
2SC3866
SUB02
PWC-3851C
(D3608S2)
W4
R22
10
T01
ST681B
22 1W
R31
C31
100P 2KV
2.5A 1KV
D31
C38
L31 10μH
R32
C32
100P 2KV
D32
R33
R36 180K
HZS100
L32 10μH
33 250V
100 250V
C41
R51
180K
R53
R52
180K
C39
10 250V
C42
33 250V
GMB01
D41
D33
C33
C59
0.047 250V
ZD31
C40
100 250V
R50 100
220 63V
L33 10μH
R34
C34
R37
ZD32
C43
C45
IC31 SI3240C
R38
47K
C44 47 63V
R39
8.2K
R54
D34 5A 300V
D35
5A 200V
F32
5A 200V
D36
F31
5A 125V
D37
5A 60V
C49
2200 35V
C51
1000 16V
ZD34
HZS24
D44
D43
GMB01
C47
1000 35V
IC32
PQ30RV1
R40
3.6K
C46
100
R42
6.2K
R55
10K
C48
100 35V
4.7μH
22K
R43
360
220 25V
C50
L634
R56
3.3K
IC33
PQ15RF2
IC34
PQ30RV11
R44
1.6K
C660
47 35V
R45
390
IC35
C54
47 35V
C52 330 16V
12.13
R47
D38
AG01Z
C53
100 35V
W11
2.2
NJM79M12
W5
W6
W7
W8
W9
W10
18
17
15
11
14
16
10
DF
+185V
+6.3V
GND
DC
+185V
+40V
+27V
+15V
GND
+22V
-12V
+12V
+6V
POWER H/ON
DEGAUSS L/ON
GND
DB
ZD35
HZS8.2N
R49
4.7K
R48
4.7K
Q31
2SB810
D42
AG01Z
W12
D39
AG01Z
D40
AK06
W13
C55
220
IC37
C57
220 35V
C58
47 35V
NJM78M06
NJM78M12
IC36
R57
10K
R58
4.7K
C56
47 35V
A
B
C
D

⚠ CLITICAL COMPONENTS

※1 100V-DZ1, EZ1/200V-DZ2, EZ2

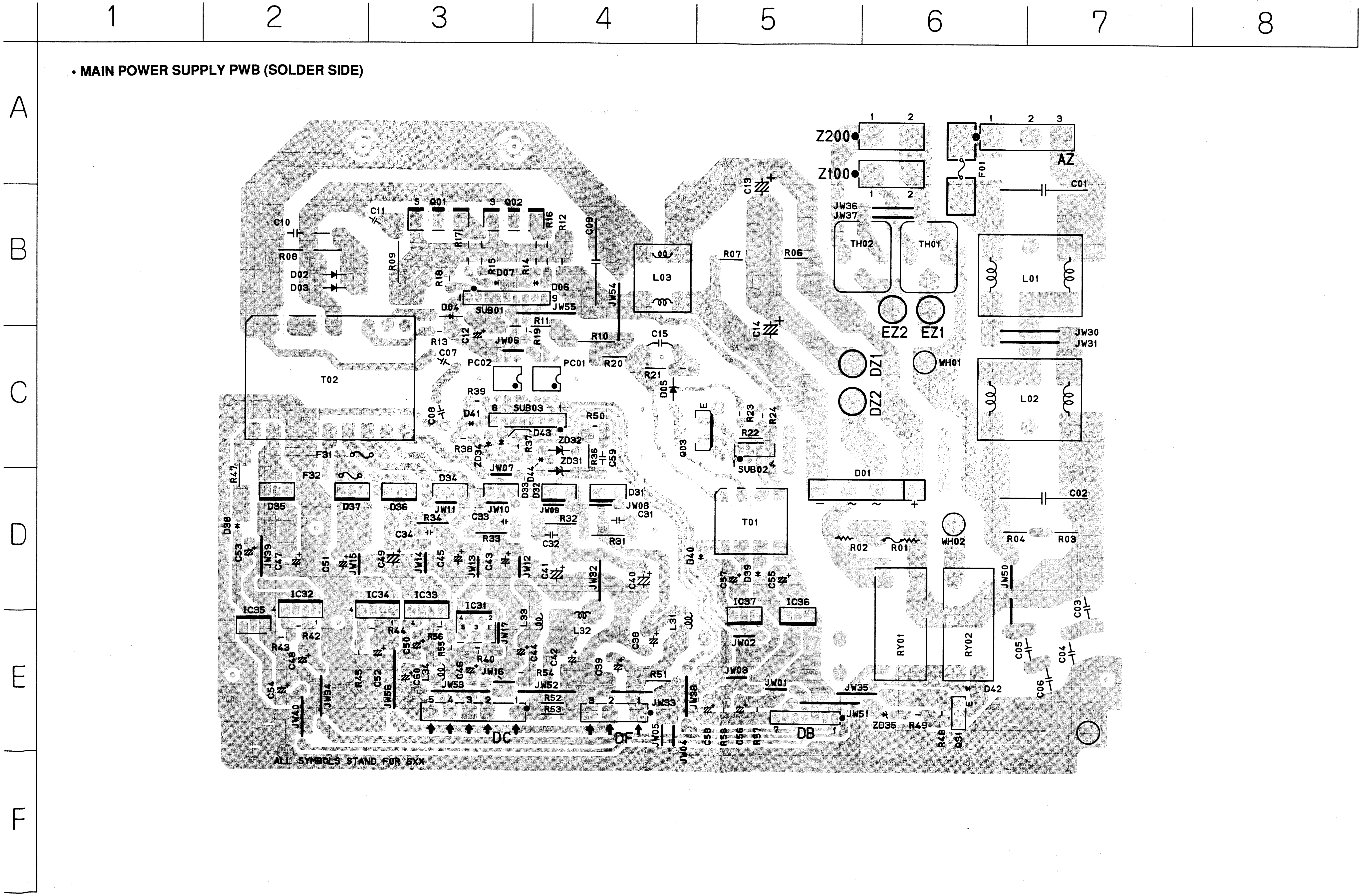
※2 ALL SYMBOLS STAND FOR 6XX

※3 All capacitor are InμF
50V unless otherwise noted.

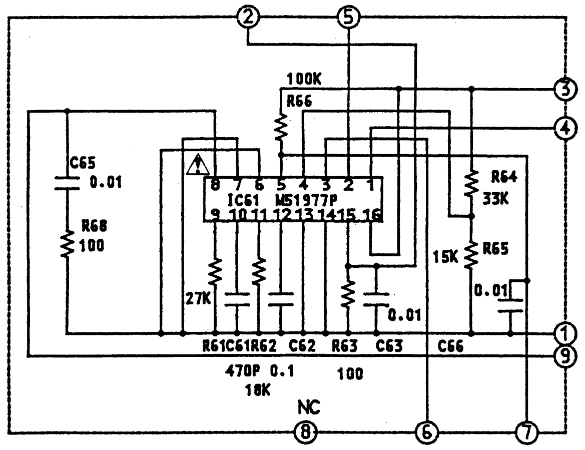
※4 All resistor are in ohm.
1/4W unless otherwise noted.

How to read : □-□-□□
Address
Page
(EX) 1-1-1A
1, 2, 3,
A
B
(Address)
1-1
Page

• MAIN POWER SUPPLY PWB (SOLDER SIDE)

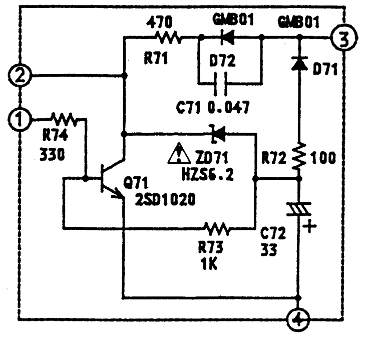

1
2
3
4
5
6
7
8
A
B
C
D
E
F
Z200
Z100
AZ
F01
C01
C13
JW36
JW37
TH02
TH01
L01
EZ2
EZ1
JW30
JW31
DZ1
DZ2
WH01
L02
C10
C11
S
Q01
Q02
R16
R12
C09
R08
R09
R17
R15
R14
D02
D03
R18
D07
D06
SUB01
JW55
JW54
L03
R07
R06
D04
R11
R13
C12
JW06
R19
R10
C15
C14
C07
PC02
PC01
R20
R21
T02
R39
D05
E
R23
R24
C08
D41
SUB03
R50
D43
R22
Q03
ZD32
R38
R37
ZD34
R36
C59
SUB02
ZD31
JW07
D44
F31
F32
D34
D33
D32
D31
D01
R47
D35
D37
D36
JW11
JW10
JW09
JW08
C31
T01
C02
D38
R34
C33
R32
C34
R33
C32
R31
WH02
R02
R01
R04
R03
C53
JW39
C47
C51
JW15
C49
JW14
C45
JW13
C43
JW12
C41
JW32
C40
D40
C57
D39
C55
JW50
IC32
IC34
IC33
IC31
IC37
IC36
IC35
L33
L31
C03
R43
R42
R44
R56
R55
C50
JW17
L32
C44
C38
JW02
RY01
RY02
C05
C04
C48
R40
C42
C39
JW03
JW01
C06
C54
R45
C52
JW56
C60
L34
C46
JW16
R54
R51
JW38
JW35
D42
JW34
JW53
JW52
R52
R53
JW33
JW51
JW40
5
4
3
2
1
DC
DF
DB
7
ZD35
R49
R48
Q31
JW05
JW04
C58
R58
C56
R57
ALL SYMBOLS STAND FOR 6XX

SUB POWER SUPPLY PWB (PWC-3851B, C, D) SCHEMATIC DIAGRAM


100K
R66
C65
0.01
R68
100
IC61 M51977P
8 7 6 5 4 3 2 1
9 10 11 12 13 14 15 16
R64
33K
15K
R65
27K
0.01
R61 IC61 R62 C62 R63 C63 C66
470P 0.1 100
18K
NC
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

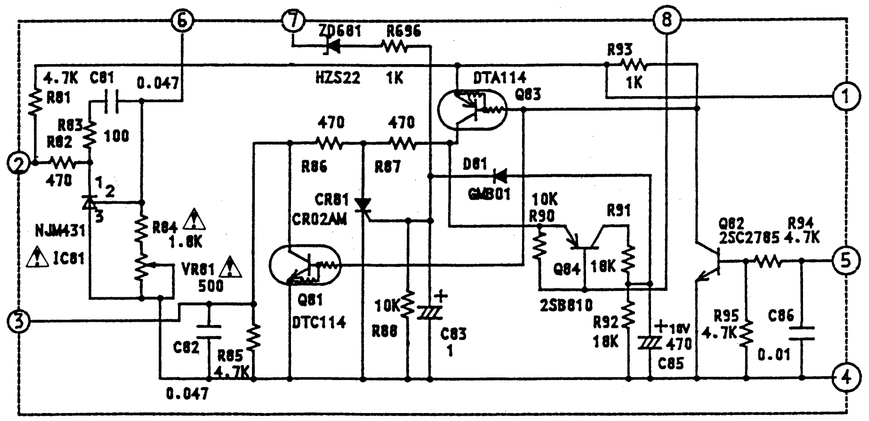
SUB601 (D3608S1)

PWC-3851B


470
GMB01
GMB01
R71
D72
D71
C71 0.047
R74
330
ZD71
HZS6.2
R72
100
Q71
2SD1020
R73
1K
C72
33
① ② ③ ④

SUB602 (D3608S2)

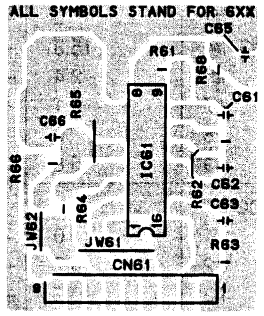
PWC-3851C

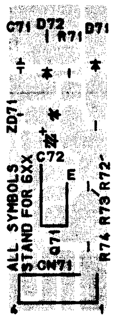

4.7K C81
R81
0.047
ZD681
R696
HZS22
1K
DTA114
Q83
R93
1K
R83
R82
100
470
470
470
R86
R87
D81
GMB01
NJM431
IC81
R84
1.8K
VR81
500
CR81
CR02AM
10K
R90
R91
Q84
18K
2SB810
Q81
DTC114
10K
R88
C83
1
R92
18K
16V
470
C85
Q82
2SC2785
R94
4.7K
R95
4.7K
C86
0.01
C82
R85
4.7K
0.047
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

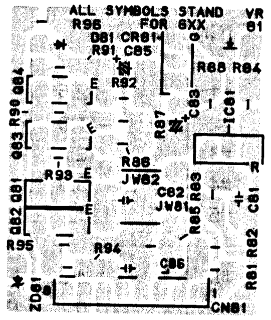
SUB603 (D3608S3)

PWC-3851D

• SUB POWER SUPPLY PWB (SOLDER SIDE)


ALL SYMBOLS STAND FOR 6XX
C65
R61
R66
C61
C66
R65
IC61
R68
R64
R62
C62
C63
JW62
JW61
R63
CN61


C71
D72
R71
D71
ZD71
ALL SYMBOLS STAND FOR 6XX
C72
Q71
R74
R73
R72
CN71


ALL SYMBOLS STAND FOR 6XX
VR81
R96
D81
CR81
R91
C85
R92
R88
R84
IC81
R87
R86
JW82
C82
JW81
R93
C81
R94
C86
R95
ZD81
CN81
Q83
Q81
Q82
R82
R81

⚠ CLITICAL COMPONENTS

※1 ALL SYMBOLS STAND FOR 6XX

※2 All capacitor are in μF.
50V unless otherwise noted.

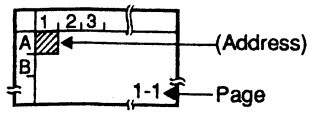
※3 All resistor are in ohm.
1/4W unless otherwise noted.

How to read : □–□–□□

→ Address

→ Page

(EX) 1-1-1A

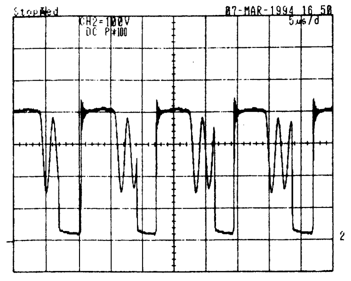

1 2 3
A
B
(Address)
1-1
Page

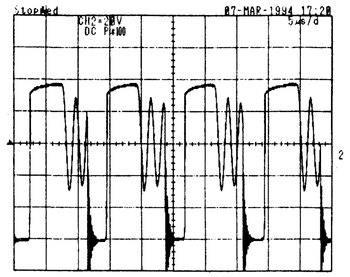
MAIN POWER SUPPLY PWB VOLTAGE

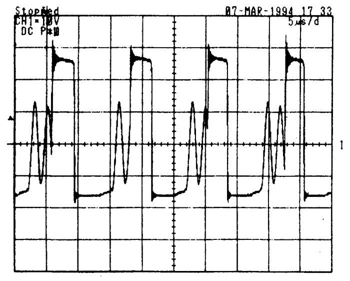
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
IC631		
#1	0	—
#2	3.2	—
#3	28.3	—
#4	24.5	—
#5	31.1	—
IC632		
#1	23.0	—
#2	22.5	—
#3	0	—
#4	1.2	—
IC633		
#1	15.2	—
#2	15.0	—
#3	0	—
#4	2.5	—
IC634		
#1	7.6	—
#2	6.3	—
#3	0	—
#4	1.2	—
IC635		
#1	−11.8	—
#2	−15.0	—
#3	0	—
IC636		
#1	20.7	—
#2	0	—
#3	12.2	—
IC637		
#1	11.8	—
#2	0	—
#3	6.0	—
IC661		
#1	15.3	—
#2	2.4	—
#3, #6, #7, #13, #14	0	—
#4	4.8	—
#5	0.1	—
#8	5.8	—
#9	4.7	—
#10	3.1	—
#11	3.6	—
#12	0	—
#15	0	—
#16	15.3	—
Q601		
(S)	0	—
(D)	317	—
(G)	2.3	—
Q602		
(S)	0	—
(D)	317	—
(G)	2.3	—

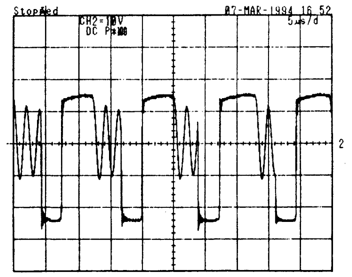
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q603		
(E)	0	—
(C)	336	—
(B)	−0.7	—
SUB601		
#1, #6	0	—
#2	0	—
#3, #4	15.3	—
#5	2.4	—
#7	0.1	—
#8	0	—
#9	5.8	—
SUB602		
#1	0	—
#2	−0.7	—
#3	−0.7	—
#4	0	—
SUB603		
#1	6.0	—
#2	4.9	—
#3	1.1	—
#4	0	—
#5	1.7	POWER ON
	0	POWER OFF
#6	2.5	—
#7	19.9	—
#8	5.8	—
CONNECTOR "DF"		
#1	187.3	—
#2	6.3	—
#3	0	—
CONNECTOR "DC"		
#1	186.0	—
#2	39.4	—
#3	28.2	—
#4	15.0	—
#5	0	—
CONNECTOR "DB"		
#1	22.5	—
#2	−11.8	—
#3	12.2	—
#4	6.0	—
#5	1.7	POWER ON
	0	POWER OFF
#6	4.8	DEGAUSS OFF
	0.7	DEGAUSS ON
#7	0	—

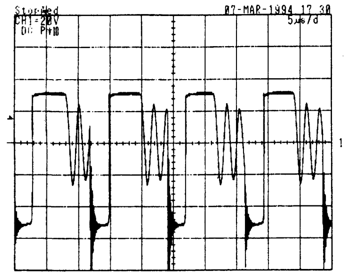
MAIN POWER SUPPLY WAVEFORM

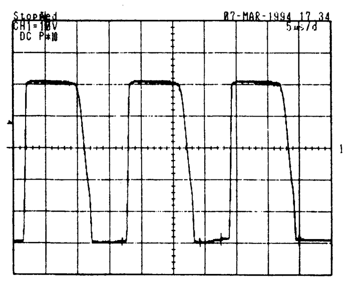

W1

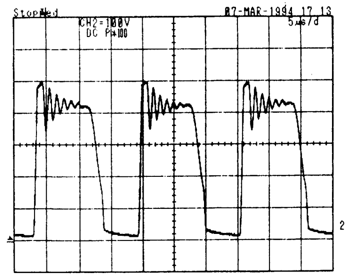

W6

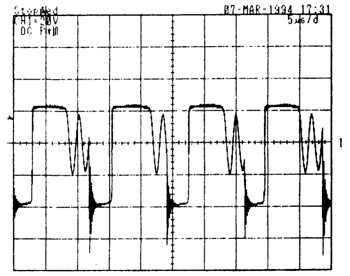

W11

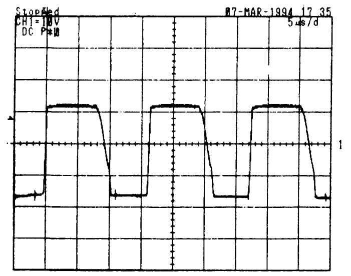

W2

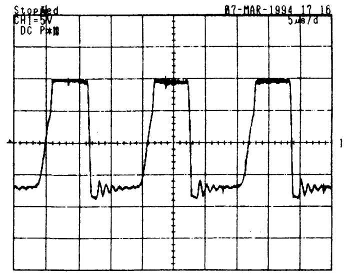

W7

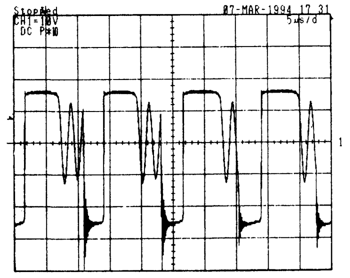

W12

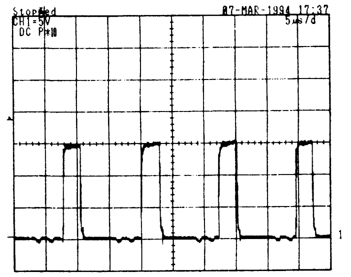

W3

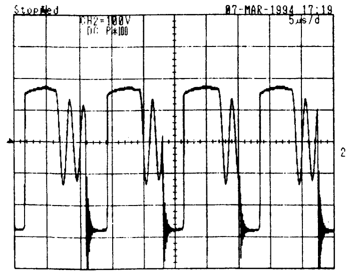

W8

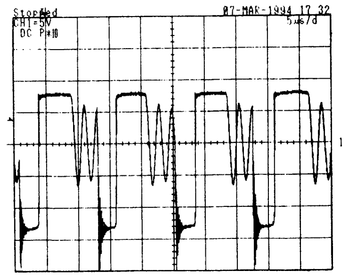

W13


W4


W9


W14

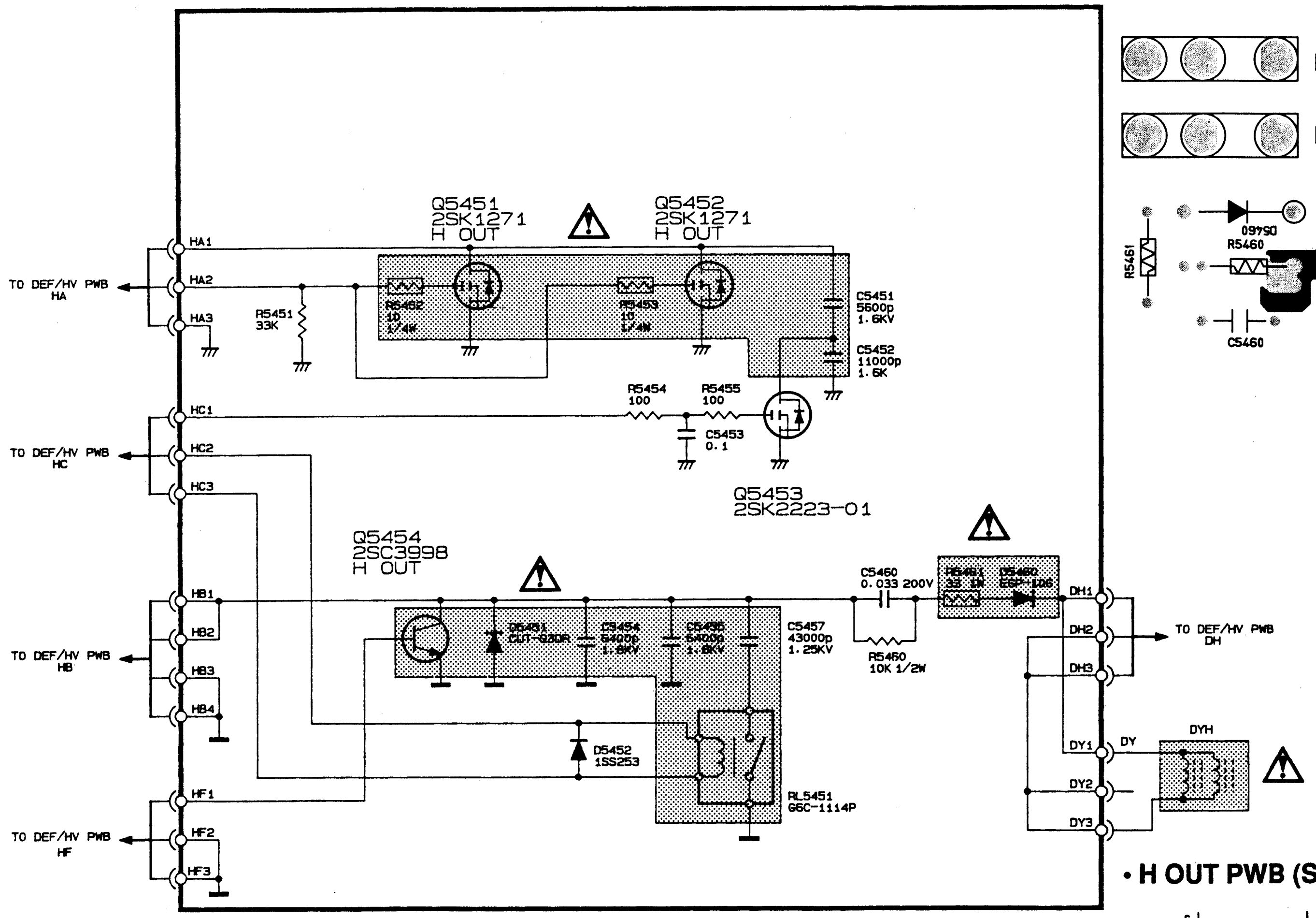

W5

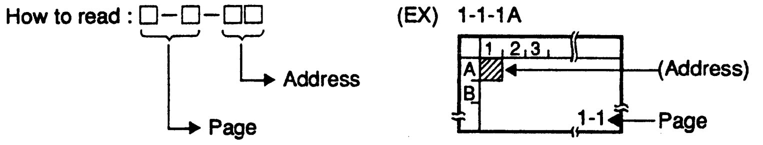

W10

1 2 3 4 5 6 7 8

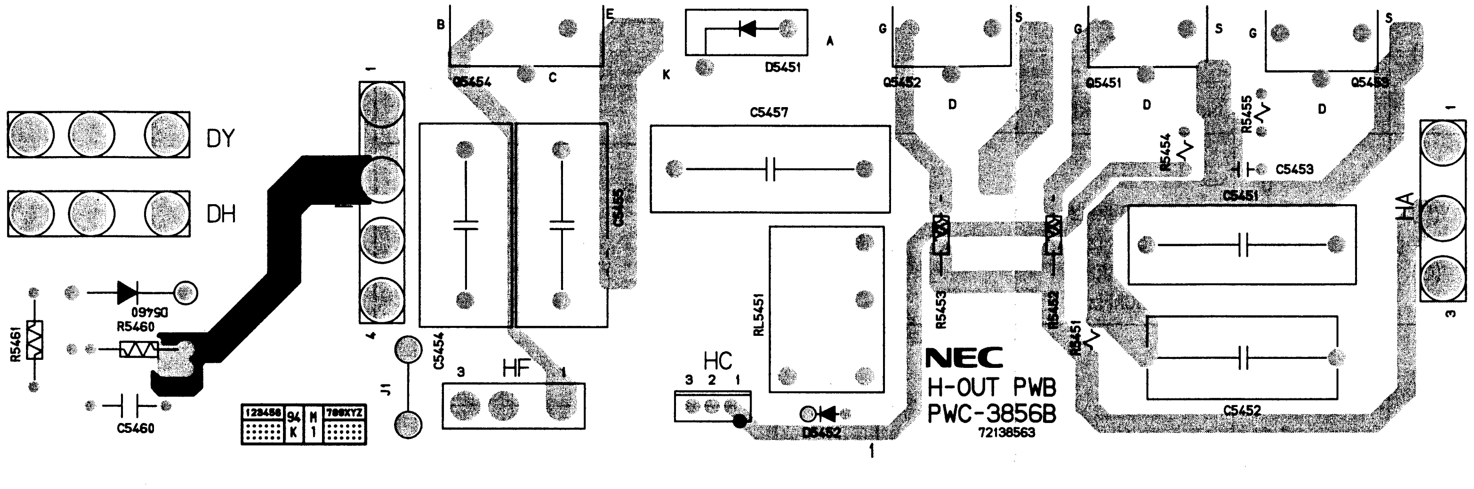
A B C D E F

H OUT PWB PWC-3856B SCHEMATIC DIAGRAM

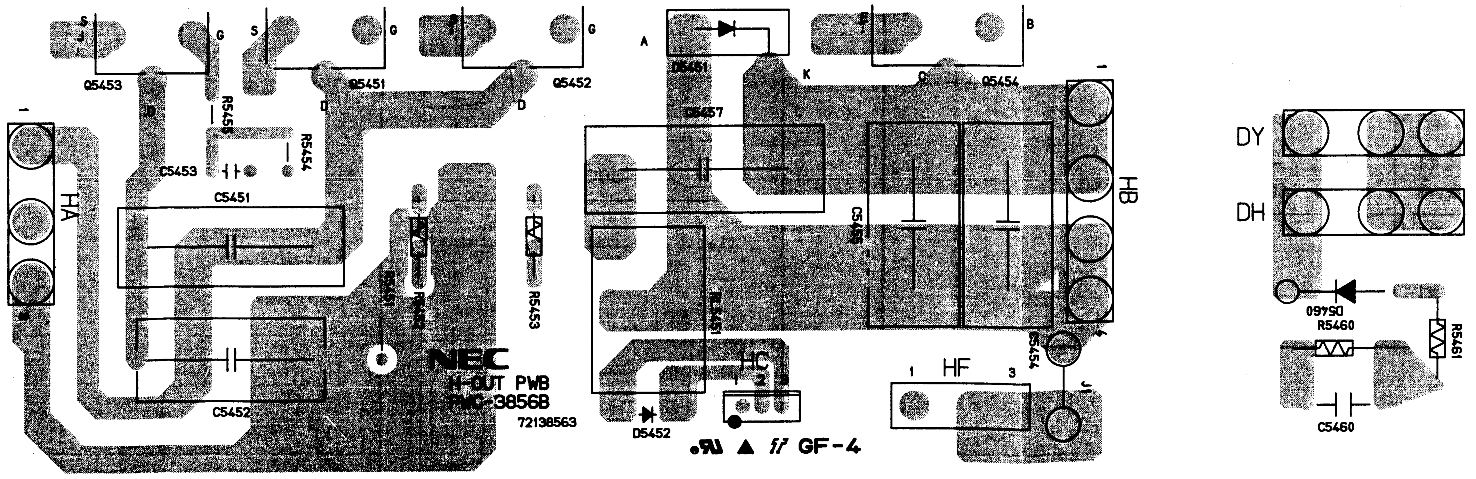

Q5451
2SK1271
H OUT
Q5452
2SK1271
H OUT
HA1
HA2
HA3
TO DEF/HV PWB HA
R5451 33K
R5452 10 1/4W
R5453 10 1/4W
C5451 5600p 1.6KV
C5452 11000p 1.6K
R5454 100
R5455 100
C5453 0.1
HC1
HC2
HC3
TO DEF/HV PWB HC
Q5453
2SK2223-01
Q5454
2SC3998
H OUT
C5460 0.033 200V
R5461 33 1W
D5460 EGP-10G
HB1
HB2
HB3
HB4
TO DEF/HV PWB HB
D5451 CUT-G3DR
C5454 6400p 1.8KV
C5455 6400p 1.8KV
C5457 43000p 1.25KV
R5460 10K 1/2W
DH1
DH2
DH3
TO DEF/HV PWB DH
D5452 1SS253
RL5451 G6C-1114P
DY1
DY2
DY3
DY
DYH
HF1
HF2
HF3
TO DEF/HV PWB HF


How to read : □-□-□□
Address
Page
(EX) 1-1-1A
1 2 3
A
B
(Address)
1-1
Page

• H OUT PWB (COMPONENT SIDE)


DY
DH
B
E
C
Q5454
K
D5451
A
G
S
Q5452
D
Q5451
Q5453
C5457
C5455
R5455
R5454
C5453
C5451
HA
1
3
D5460
R5460
R5461
C5460
C5454
J1
HF
3
1
4
HC
3 2 1
RL5451
D5452
R5453
R5452
R5451
C5452
NEC
H-OUT PWB
PWC-3856B
72138563
123456 94 M 789XYZ
K 1

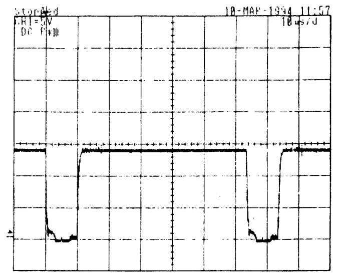
• H OUT PWB (SOLDER SIDE)

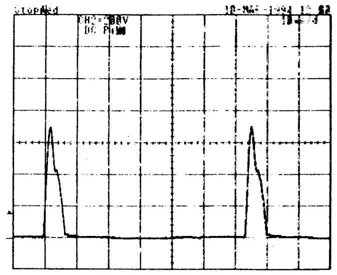

S
G
Q5453
Q5451
Q5452
A
D5451
K
C
Q5454
B
C5457
R5455
R5454
C5453
C5451
HA
HB
C5455
RL5451
R5453
R5452
R5451
C5454
C5452
NEC
H-OUT PWB
PWC-3856B
72138563
HC
HF
1
3
D5452
J1
DY
DH
D5460
R5460
R5461
C5460
▲ GF-4

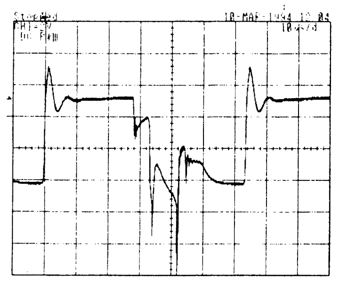
H OUT PWB VOLTAGE

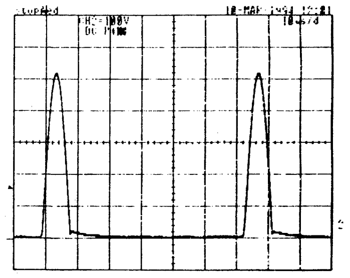
CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
Q5451		
(S)	0	—
(D)	—	—
(G)	12.1~7.1	fH: 15.5k~50.0kHz
Q5452		
(S)	0	—
(D)	—	—
(G)	12.1~7.1	fH: 15.5k~50.0kHz
Q5453		
(S)	0	—
(D)	0	fH: 15.5k~34kHz
	—	fH: 34k~50kHz
(G)	14.0	fH: 15.5k~34kHz
	0	fH: 34k~50kHz
Q5454		
(E)	0	—
(C)	—	—
(B)	-1.1	—
CONNECTOR "HA"		
#1	—	—
#2	12.1~7.1	fH: 15.5k~50.0kHz
#3	0	—
CONNECTOR "HB"		
#1, #2	—	—
#3, #4	0	—
CONNECTOR "HC"		
#1	14.0	fH: 15.5k~34kHz
	0	fH: 34k~50kHz
#2	14.0	—
#3	2.3	fH: 15.5k~21kHz
	14.0	fH: 21k~50kHz
CONNECTOR "HF"		
#1	-1.1	—
#2, #3	0	—
CONNECTOR "DH"		
#1	—	—
#2, #3	14~140	fH: 15.5k~50kHz
CONNECTOR "DV"		
#1	—	—
#2, #3	14~140	fH: 15.5k~50kHz

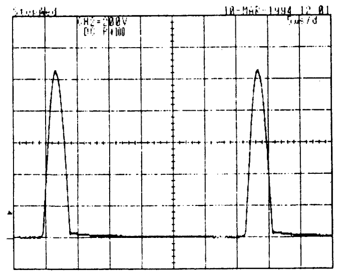
H OUT PWB WAVEFORM


(W1)

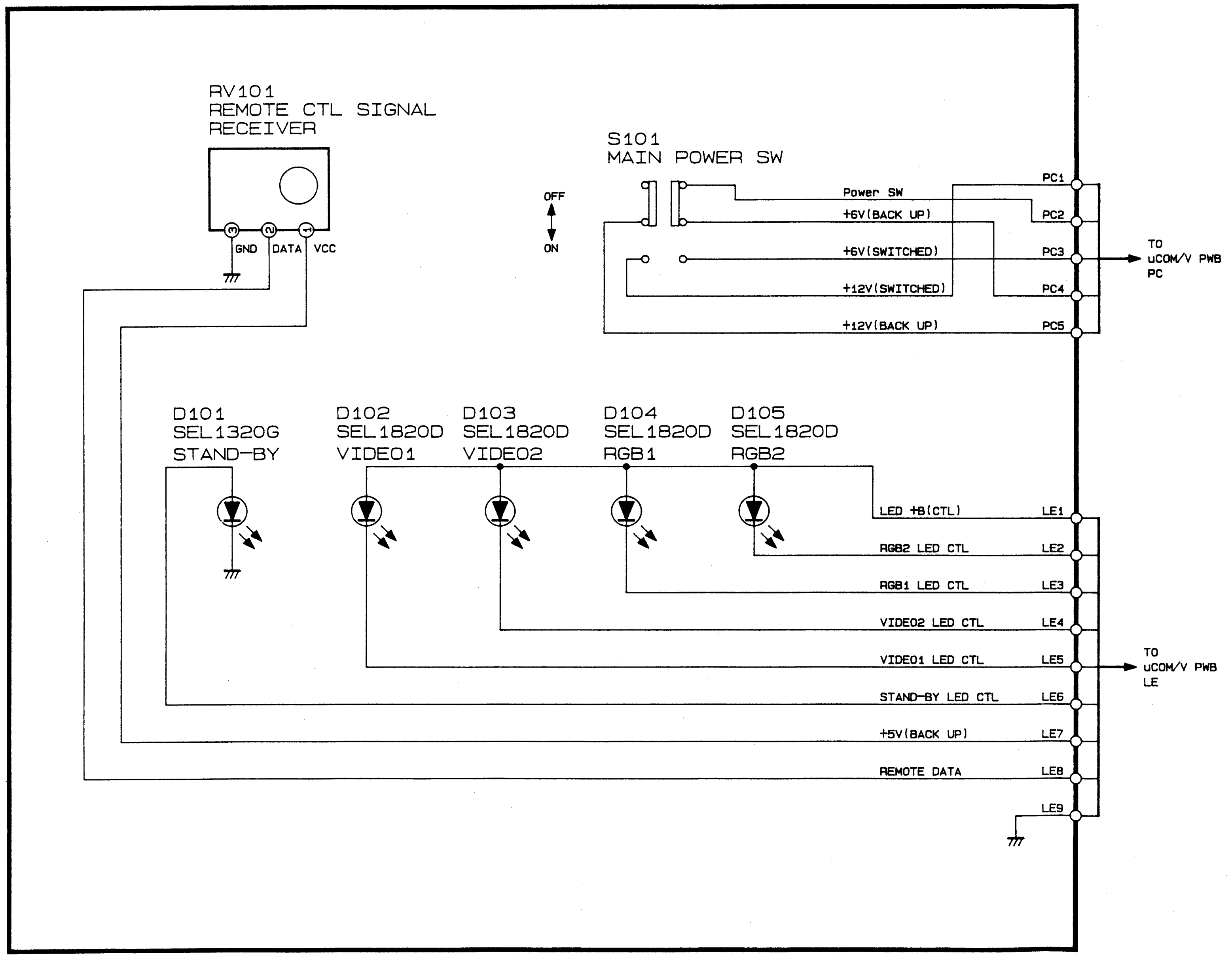

(W2)


(W3)


(W4-1) Video

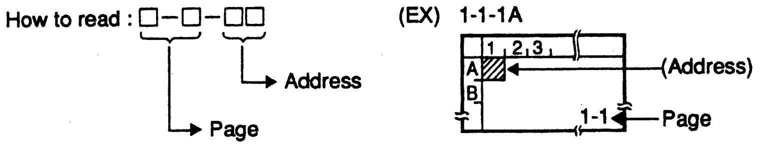

(W4-1) VGA

SW-LED PWB PWC-3856C
SCHEMATIC DIAGRAM


RV101
REMOTE CTL SIGNAL
RECEIVER
GND
DATA
VCC
S101
MAIN POWER SW
OFF
ON
Power SW
+6V(BACK UP)
+6V(SWITCHED)
+12V(SWITCHED)
+12V(BACK UP)
PC1
PC2
PC3
PC4
PC5
TO
uCOM/V PWB
PC
D101
SEL1320G
STAND-BY
D102
SEL1820D
VIDEO1
D103
SEL1820D
VIDEO2
D104
SEL1820D
RGB1
D105
SEL1820D
RGB2
LED +B(CTL)
RGB2 LED CTL
RGB1 LED CTL
VIDEO2 LED CTL
VIDEO1 LED CTL
STAND-BY LED CTL
+5V(BACK UP)
REMOTE DATA
LE1
LE2
LE3
LE4
LE5
LE6
LE7
LE8
LE9
TO
uCOM/V PWB
LE

SW-LED PWB VOLTAGE

CIRCUIT SYMBOL	VOLTAGE (V)	CONDITION
CONNECTOR "PC"		
#1	12.1	MAIN POWER ON
	0	MAIN POWER OFF
#2	0	MAIN POWER ON
	6.0	MAIN POWER OFF
#3	5.9	MAIN POWER ON
	0	MAIN POWER OFF
#4	6.0	—
#5	12.1	—
CONNECTOR "LE"		
#1	5.0	MAIN POWER ON
#2	3.1	RGB 2 Mode
	3.7	Other Mode
#3	3.1	RGB 1 Mode
	3.7	Other Mode
#4	3.1	VIDEO 2 Mode
	3.7	Other Mode
#5	3.1	VIDEO 1 Mode
	3.7	Other Mode
#6	0	POWER ON
	2.0	STAND-BY
#7	5.0	POWER ON
#8	7.1	ditto
#9	0	—


How to read : □-□-□□
Address
Page
(EX) 1-1-1A
1 2 3
A
B
(Address)
1-1
Page